July-September 1983

Military Intelligence

Promoting Professionalism in Military Intelligence

Intelligence Operations for all Services

Cover: The emblems of all services make up for the cover for this, our intelligence for all services issue. The overlapping of the emblems symbolizes the interdependence of services comprising the U.S. Armed Forces.

Departments

Theme Features

We have reports from our sister services on their intelligence operations.

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Military Intelligence

From the Home of Intelligence **July-September 1983**

Other Features

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Secretary of the Army

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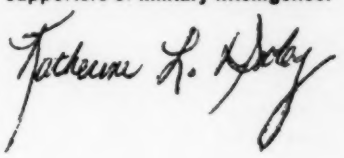
Next Issue

In the next issue, we'll look at high technology supporting intelligence operations, AirLand Battle 2000, and artificial intelligence applications. You don't want to miss it.

This is the last **Military Intelligence Magazine** of which I will physically be a part. My tenure, although short, as the editor has proven a rewarding and growing experience. This is a direct result of the magazine's fine staff and their never ending support and patience.

This issue is also the last for Ms. Dee Jones, the magazine's designer for the past eight years. Her contributions to the magazine have been countless through the years. She will be missed.

In the 15 months that I've been with the magazine, some things have changed. It was my goal to use the magazine to better serve the intelligence community. The **Military Intelligence Magazine** will always be a part of me. Continue to support our magazine; it needs you to survive. My thanks to the staff and the supporters of **Military Intelligence.**



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From the Commander

by Brig. Gen. Sidney T. Weinstein

This issue of MI magazine is intended to provide information on the intelligence organizations and perspectives of our sister services.

It is important for Army MI professionals to understand how the Air Force, Marine Corps and Navy view intelligence and how they are organized. I stress the importance because one of our most urgent concerns is to figure out smart ways to meet Army intelligence requirements using the capabilities of other services.

At the Intelligence Center and School we are working on that problem for at least two big reasons. First, during the Intelligence and Electronic Warfare Systems Program Review held here in October 1982, it came out loud and clear that in a period of tight budgets all services need to do more to share intelligence collection capabilities. In the future, money probably won't be available to let all the services buy all the stand-alone systems being asked for. Second, AirLand Battle doctrine, with see deep and fight deep requirements, means the Army must have rapid intelligence exchanges with any asset which has range greater than our own. That kind of intelligence exchange is easy to talk about, but not always easy to do. There are communication problems, doctrinal problems and some organizational problems that have to be solved.

There is a lot of working level experience in the field today that can provide some solutions to these problems. I have mentioned before in this magazine that we want input from the field to help us write doctrine and put together organizations that will get the job done. I say it again in this specific area. Let us hear from you.

The next issue of your magazine will be out in mid-November. The theme will be high technology in MI. Don't miss it. If you are not a subscriber use the form in this issue so you will be sure of getting a copy.

Feedback

Soviet FMs

Editor:

The review of David Isby's book, **Weapons and Tactics of the Soviet Army**, in the October-December 1982 issue of *Military Intelligence* stated in part: ". . . The material covered within the book, while not all encompassing, is by far the very latest information available today at the unclassified level. . . "

While these remarks could very well have been true at the time of the review, the latest definitive unclassified references on the Soviet army are the DA-approved 100-2 series of field manuals. The field manual series includes: FM 100-2-1, *Soviet Army Operations and Tactics;* FM 100-2-2, *Soviet Army Specialized Warfare and Rear Area Support, and* FM 100-2-3, *Soviet Army Troops, Organization and Equipment.* The field manuals will be published in final form and will be distributed in November or December of this year. In the interim, the coordinating drafts, already distributed to the field, have been approved by Headquarters, TRADOC, for use as the most authoritative source for Threat instruction, briefings, scenarios, ARTEPs and other actions within TRADOC which use unclassified Threat material.

Maj. Robert W. Cook, Jr.
Project Officer, T/TD Div.
Threats Directorate, CACDA
Fort Leavenworth, Kan.

Psychological operations

Editor:

The October-December 1982 Soviet Threat issue contains an article entitled "Psychological Operations against the Soviet Union" by Capt. Drusilla Brown. In the article, Capt. Brown asserts that increasing the information flow through psychological operations (PSYOPS) directed at the Soviet Union will fill the vacuum they have concerning U.S. lifestyles, goals and policies. She asserts that this would draw them towards a more receptive attitude about the U.S. or as she states, "at least become more knowledgeable about the U.S. and less likely to question America's desire for peaceful coexistence."

Marxist-Leninist indoctrination of all Soviet citizens begins in kindergarten and continues the rest of their lives. Seven-year-olds are schooled in the glories of the Soviet military system. A few broadcasts, articles or films concerning the American "way of life" cannot change the Soviet citizens' fundamental beliefs about America or show them our genuine desire for peace. The U.S. must first understand the Soviet philosophy of life. The Soviet citizen may think of new ways to bend rules in his favor, but it is unlikely he would take any real action against authority.

The Soviet citizen is a highly patriotic individual with deep-rooted ideological beliefs. A recent PBS Frontline program reviewed how difficult it is for the Soviet citizen to change those beliefs. If the U.S. proposes to mount PSYOPS towards the Soviet people, we must first ascertain what is possible for them to believe given their present, fundamental ideology. If we can gear our PSYOPS toward what they could believe—given the parameters of their Marxist-Leninist dogma—then we can make substantial gains into the Soviet citizens' awareness of the U.S. Otherwise, just as the Soviet citizen recognizes Soviet propaganda for what it is, he will view U.S. information as propaganda and ignore it as well. We will have to explore what information is acceptable to the Soviet citizen before any type of PSYOPS effort is started.

Capt. James G. Steinke
OPFOR Branch, USAICS

97B Dilemma

Editor:

First let me say that I really enjoy the magazine. The articles are interesting and very informative.

I would like to address the 97B Dilemma article in the October-December 1982 issue. I wholeheartedly agree there is a 97B dilemma. The article leads you to believe the 97B dilemma is a new problem. It is not a new problem. The Counterintelligence Assistant 97B10 Program is fairly new but the perception of a good many 97B10s is exactly as the article states "the students believe they were to be trained for investigative positions requiring the wearing of civilian clothes and carrying a badge and credentials." This is an age old problem with the 97B10s. I have over 17 years experience in the 96B/97B field and through those years I have received 97Bs out of school with the "James Bond Syndrome." I also agree that recruiters are a major factor in our young soldiers having this "James Bond" perception. I also believe the school could do more in solving this syndrome.

I've come across a lot of senior NCO's and officers that have the same "James Bond Syndrome" problems. Instead of trying to place all the blame on the recruiters, the educational system must stress honest-to-goodness counterintelligence and less of the glory and the good life as a 97B. We would produce a better soldier and the young 97B would know what to expect when he arrived in a tactical unit.

Again keep up the good work. It was a good article, I just didn't feel it went deep enough into the perception problem of the 97B.

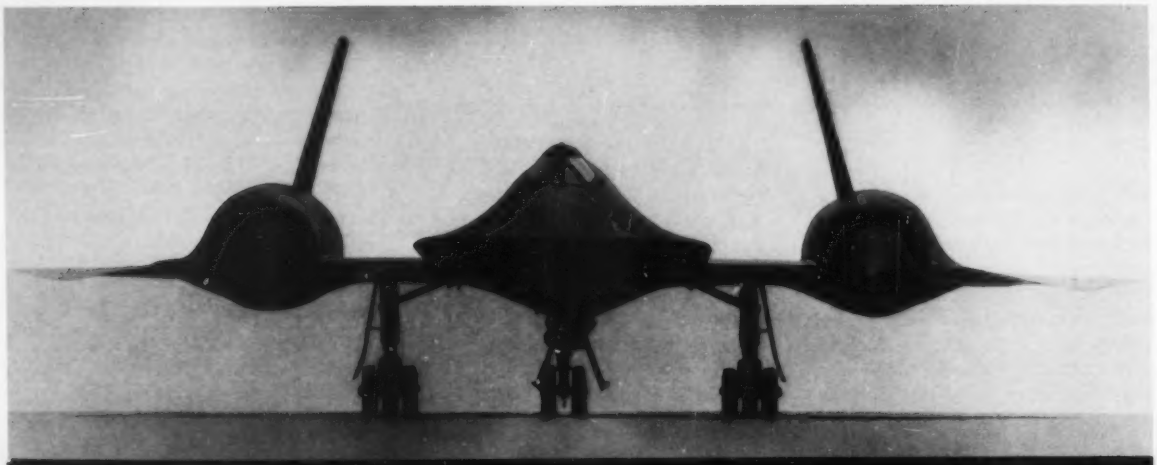
CSM William C. Garrett Jr.
552nd MI Battalion
2nd Armored Division
Fort Hood, Texas

66th MI Group history

Editor:

The article "History of the 66th MI Group" in the April-June issue of *Military Intelligence* is essentially correct in the main points despite some small errors and omissions. The final regional structure of the 66th MI Group consisted of five, not four, regions (I, III, IV, XI and XII). Region XII relocated from Augsburg

Continued on page 38



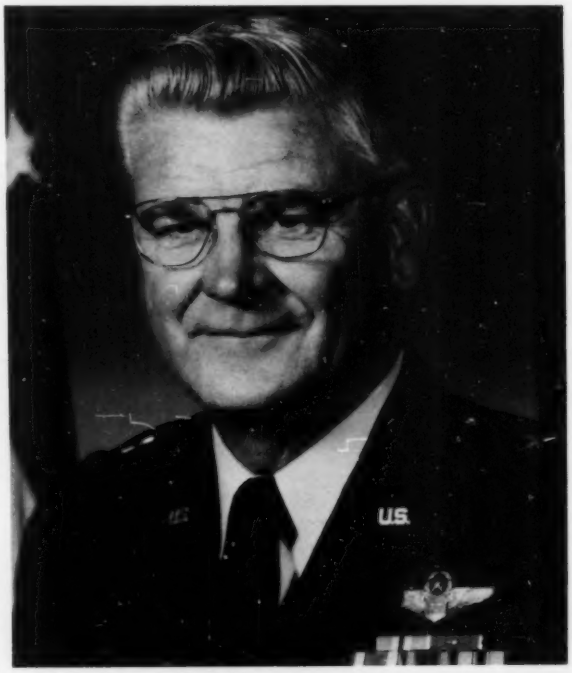
U.S. Air Force Intelligence

A message from Major General John B. Marks, the Assistant Chief of Staff for Intelligence, Headquarters, United States Air Force

Although demands on USAF intelligence most certainly will increase, we should realistically assume competition for defense dollars will rise. This means we must all better employ current resources to strengthen peace-keeping and war-winning intelligence capabilities. Better employment means we must:

- Tighten up collection and production management, provide intelligence that is clearly required by users and cut non-essential activities.
- Improve our interface with other U.S. service intelligence activities and allied counterparts, and with operational users of USAF intelligence.
- Focus more on challenges identified with specific operational planning commitments, especially difficult issues like communications and combat intelligence survivability.
- Exercise and evaluate entire intelligence systems more thoroughly and regularly, and make time to fix identified deficiencies.
- Pay more attention to our people and their training, professional development, recognition and readiness to fight.

With your assistance, intelligence support to U.S. and allied national authorities, commanders, and operators of weapon systems will continue to promote our capabilities to defend national security interests.



Maj. Gen. John B. Marks

This input was prepared while Maj. Gen. Marks was the ACS/I, HQ USAF. His successor is Maj. Gen. James C. Pfautz.

The basic function of USAF intelligence is to provide decisionmakers information on current and estimated foreign military activities, strategy, tactics, capabilities and intentions. Unfortunately, discussions of the intelligence mission often treat this basic function as an end in itself and may cloud appreciation of its real utility. To preclude such misunderstanding, our fundamental purpose should be clarified at the outset. USAF intelligence exists to reduce decisionmaking risks associated with national security policy and structuring, posturing, and employment of U.S. military forces. By reducing decisionmaking risks, USAF intelligence:

- Contributes to deterrence of potential actions by foreign parties that would conflict with U.S. and allied national security interests.
- Increases the probability of success for aerospace power to conclude hostilities on terms favorable to U.S. and allied interests.
- Improves the ability to effectively conduct other military operations.

An effective intelligence organization is required to achieve this fundamental purpose.

Organization. The Assistant Chief of Staff for Intelligence, Headquarters, U.S. Air Force (ACS/I, HQ USAF) is a major general who also serves as commander of the Air Force Intelligence Service. Together, the ACS/I, AFIS commander, and their intelligence directorates provide functional management, oversight or headquarters review of all Air Force intelligence activities. This responsibility encompasses resource guidance for intelligence planning, programming, budgeting, system development, manpower, organization, training, doctrine, mission and related matters. In addition, the ACS/I staff develops the USAF position on for-

This shows the primary activities of USAF intelligence elements as functionally assigned.

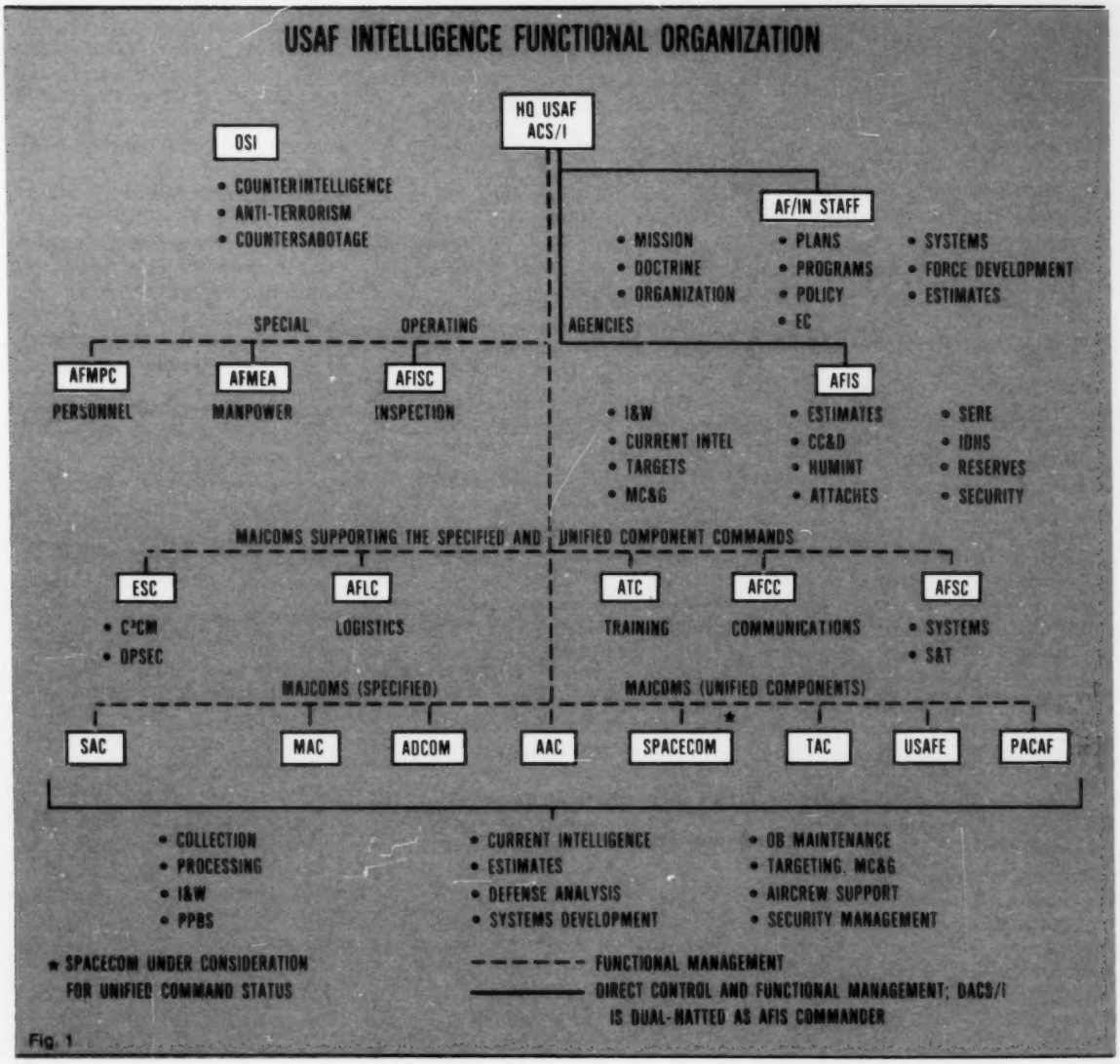


Fig. 1

eign military capabilities and probably courses of action, and provides daily intelligence support to the Air Staff.

The organization for the acquisition, production and application of USAF intelligence is summarized in figure 1. Details on these functions are addressed in follow-on sections.

Resources. Approximately 15,000 intelligence people and another 13,000 support people comprise the active duty "blue suit" intelligence manning of all Air Force, joint, and international organizations. In addition, five Air National Guard and Air Force Reserve programs provide 4,000 intelligence personnel. Collectively, this worldwide manning is less than three and one-half percent of all USAF personnel. Of this total intelligence force and its supporting funding, the majority of resources are dedicated to collection and processing activities. The remainder is allocated to producing finished intelligence, supporting users in the application of intelligence, and operating intelligence sustaining functions.

These USAF organizations and resources must satisfy the requirements of users of intelligence at national through Air Force squadron level.

Requirements. At the national level, USAF substantive intelligence requirements are represented by Air Force membership in intelligence community committees and councils, and in Defense intelligence forums. Air Force requirements are also entered into directives on intelligence priorities of the Director of Centeral Intelligence, DoD plans that identify gaps in intelligence coverage, JCS documents guiding intelligence support of defense planning, and service guidance of similar nature. In unified and specified commands, USAF requirements are stated in appendices to operations plans, in command collection plans, and special theater level documents. In addition, program planning and operational requirements are identified at wing through major air command level. With user requirements identified, USAF intelligence activities perform the operating functions of information acquisition, intelligence production and application of intelligence.

Information Acquisition. The acquisition function consists of the collection of raw data from all available sources and the processing and exploitation necessary to transform it into usable intelligence information. Collection management activities are most important to effective acquisition.

- Collection Management. Air Force intelligence specialists representing multi-source information disciplines work in collection management offices at national, U&S command and MAJCOM headquarters. These collection managers ensure validated requirements are tasked for collection to the activity best suited to satisfy them. In doing so, they work closely with operations people that plan and control the execution of airborne missions by reconnaissance aircraft. An example is the Strategic Air Command's Strategic Reconnaissance Center where intelligence collection management people work directly with reconnaissance operations counterparts in planning SAC RC-135, U-2R and SR-71 missions.
- Collection and Processing. The sources of USAF intelligence include human resource intelligence, imagery intelligence, and signals intelligence. These disciplines and others ensure a regular data flow from worldwide collection and processing activities.

HUMINT The Air Force Special Activities Center manages USAF HUMINT collection and reporting. Special activity area headquarters in Europe and the Pacific provide decentralized command and control of AFSAC elements overseas and ensure satisfaction of supported command requirements. AFSAC peacetime activities involve interviewing refugees, defectors and emigres, and assistance in the acquisition of foreign material. Emphasis in wartime is placed on interrogation of prisoners of war. Wartime HUMINT further includes translating, interpreting and debriefing activities, as well as those functions accomplished in peacetime. These HUMINT activities offer a relatively inexpensive means of acquiring intelligence information and provide tip-offs to, and confirmation of, intelligence gained through other means. In addition, HUMINT has the potential to provide data on foreign intentions that many other collection sources cannot provide.

IMINT Airborne IMINT collection and ground processing assets are organic to SAC and the tactical air forces of the Pacific Air Forces, Tactical Air Command and U.S. Air Force Europe. Strategic imagery reconnaissance is flown by SAC high altitude, long-range SR-71 "Blackbirds" and U-2R aircraft, using various optical and radar imaging sensors. The new TR-1 will provide tactical imagery using an Advanced Synthetic Aperture Radar System, with imagery data linked directly to ground stations for timely processing and exploitation. Tactical imagery is also acquired by the TAF and Air National Guard units flying RF-4C Phantoms with optical cameras, side-looking airborne radar and infrared sensors. Photo processing and interpretation facilities develop and exploit RC-4C optical and infrared imagery, while the Manual Radar Reconnaissance Exploitation System supports SLAR imagery. These PPIFs and larger IMINT processing and production centers of SAC and the TAF have highly skilled interpreters who analyze the imagery using advanced automated data processing aids. The ground IMINT elements often include U.S. Army and Marine Corps imagery interpreters located with, or assigned to, USAF elements. Such arrangements promote satisfaction of multi-service requirements for IMINT and inter-

Imagery interpretation by SAC intelligence specialists.

service intelligence operations in general. The IMINT resulting from both SAC and TAF organizations is used to update intelligence files, revise target lists and priorities, support current intelligence and estimates, and prepare aircrew training and mission planning materials.

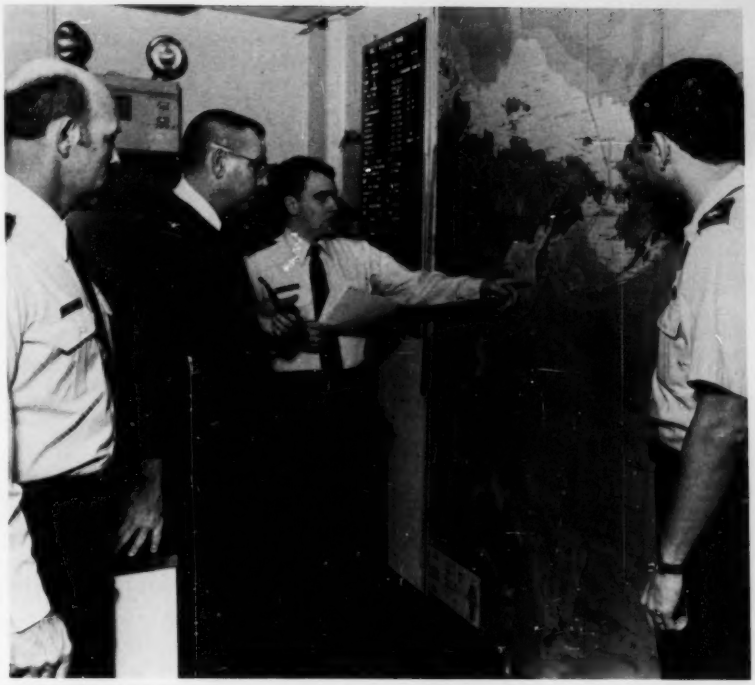
SIGINT USAF SIGINT capabilities consist of airborne and ground collection sites. These Air Force SIGINT assets acquire data that satisfy requirements for intelligence at all echelons, to include the time-critical information needs of both air and ground force tactical commanders. SIGINT information is processed by various responsive systems and results are integrated with information from other intelligence sources. SIGINT data then support the production of intelligence in key areas such as current intelligence, order of battle maintenance, defense analysis and targeting.

Production of Intelligence. Multisource information, acquired by the Air Force and counterpart services and agencies, is passed to production activities for the development of finished intelligence.

- Management. Like all Defense intelligence producers, USAF production elements follow geographical and topical priorities for intelligence requirements used by collection managers. In addition to satisfying these standing requirements, each USAF intelligence producer must respond to a steady flow of service and command-unique departmental and operational requirements for production. In this process, Air Force organizations strive to reduce unnecessary duplication of effort and ensure validated user requirements are satisfied in the most effective and efficient way. This means, for example, TAC's 480th Reconnaissance Technical Group produces equipment recognition training materials on foreign air force weapon systems to prepare the aircrews of all USAF commands. Production management also means certain USAF intelligence producers are delegated responsibility by DIA to maintain air and missile orders of battle for all U.S. Defense needs.

- Basic and Current Intelligence. Intelligence producers must develop immense files of basic intelligence facts to support intelligence activities. From these data bases and newly acquired information, producers are ready to warn of potentially hostile acts against U.S. and allied interests. USAF indications and warning centers play a major role within the worldwide DoD I&W System. Key nodes, such as the SAC and Military Airlift Command I&W centers, keep vigilant watch around the clock to provide immediate threat notice to national authorities and command and control elements. Closely related, but less time sensitive than I&W, are the daily reports and briefings on current foreign military, political and socio-economic events that could influence national security policy or require action by U.S. military forces. For example, the Directorate of Estimates at Air Staff sends a daily message to worldwide addressees providing the items briefed to the USAF Chief of Staff and other senior Air Force officials. Similarly, USAF operational intelligence elements, like those assigned to PACAF's 6th Tactical Intelligence Group, provide summaries of daily events ranging from minor border incidents, military deployments and new foreign air force tactics, to ongoing international conflicts.

- Estimates. USAF intelligence elements at the Air Staff, MAJCOM headquarters, Direct Reporting Units and Special Operating Agencies produce intelligence estimates of foreign military objectives, weapon system capabilities and scientific and technological advances. For example, the Directorate of Estimates at HQ USAF and the Foreign Technology Division produce threat assessments for use in USAF Statements of Need and similar resource programming documents which provide the basis for research, development and acquisition of U.S. aerospace weapon systems. Intelligence also provides threat estimates to support the Joint Operations Planning System and the Joint Strategic Planning System in the form of projections of foreign military capabilities and policies that could impact U.S. military strategy and force structure. Should international conflict arise, our estimates indicate people also provide combat commanders with the most probable course of enemy action to support battle management and force execution decisions.



"Current intelligence support to MAC Command Center mission controllers"

"Situation briefing to F-15 aircrews by TAC wing intelligence"

• Targeting. Within Air Force intelligence, targeting support to C² elements and aircrews is a critically important function. An example is target development, which entails the identification, precise location and description of physical characteristics and the significance of individual targets. The targeting function also includes prioritization and nomination of targets for strike, restrike and reconnaissance. Weaponeering is an important subdiscipline in which our people determine target vulnerabilities and recommend specific munition loads, fuzing, aim points and delivery parameters for a given target, desired probability of damage, and type of aircraft. The USAF targeting function also includes production, maintenance and issue of target materials developed by Air Force intelligence organizations using photographic and radar imagery, and includes distribution of maps and charts produced by the Defense Mapping Agency to support mission planning by aircrews and combat missile crews. In peacetime, target lists are developed for specific operations plans using an immense data base maintained on special computer systems. In combat, these same targeting functions occur at a much faster rate, while additional ones, such as damage assessment reporting, are added. In peacetime and during hostilities, USAF targeting is a critical discipline, well appreciated by operational users of intelligence.

Support to Users. Acquisition and production functions lead to finished intelligence to support users at all echelons. A review of these users should improve understanding of Air Force intelligence operating objectives.

• National. As a major participant in the U.S. intelligence community, USAF intelligence serves the National Command Authorities, the National Security Council, the DCI, the Joint Chiefs, Congress and many of their agencies, committees and other forums. These top level users receive USAF intelligence directly and indirectly through support by special Air Force collection activities and production of current, estimative and target intelligence which is integrated with the output of other intelligence community elements. An example might be development of an Air Force estimate on the capabilities and deficiencies of a foreign air force which becomes part of a national intelligence estimate designed to facilitate foreign military sales decisions.

• Departmental. The primary users of intelligence at HQ USAF are the staffs of Plans and Operations, Research, Development and Acquisition, Studies and Analysis, Programs and Resources, and Logistics and Engineering. The departmental intelligence provided these Air Staff users is critical for identifying the potential foreign military threat which is the basis for the research, development, acquisition and employment of U.S. weapon systems, to include their support systems. For example, Air Staff intelligence might provide the Directorate for Operations information on foreign military techniques in concealment and deception to assist development of defenses for USAF bases.

• Operational. Planning and executing operational missions require intelligence support tailored to command authority and mission, C² structure and capability, and number, type and specific tasking of each flying squadron. Most operational intelligence in peacetime is focused on supporting exercises and other readiness actions designed to prepare command flying units to carry out the tasking assigned in operations and contingency plans. In wartime, it is focused on getting bombs on target and promoting survival of U.S. and allied forces.

At MAJCOM headquarters, intelligence provides the commander and staff daily intelligence briefings on current events that could impact command missions. In addition, MAJCOM intelligence and operations staffs regularly work together in several key areas. This work includes targeting and electronic combat support to operations planning, intelligence requirements and ground processing management associated with reconnaissance, and policy coordination for aircrew intelligence training and base defense.

Elements of C² systems are major users of air intelligence, from international through U.S. air component command level. For example, USAFE recommends specific enemy installations for potential strike by NATO air forces by providing regular targeting intelligence to allied headquarters. In addition, C² headquarters provide a primary channel through which intelligence is exchanged with other services.

At wing and squadron level, USAF intelligence supports its greatest number of operational users. This "unit level" support primarily involves the application of intelligence. Although reporting of aircrew observations and reconnaissance wing IMINT are examples of unit level acquisition and production, the core tasks of wing intelligence are providing:

- Threat advisories and other current and estimative intelligence to Wing Operations Centers and Base Defense Operations Centers.
- Threat awareness training for all base personnel.
- Training, materiel aids and many support services required by aircrews to:
  - — Recognize and understand the capabilities, vulnerabilities, and employment tactics of foreign military weapon systems.
  - — Plan and execute combat missions using intelligence applied through the delivery of premission briefings, maps and charts, target materials, mission planning assistance, and the conduct of post-mission debriefing.

— Survive, evade, resist and escape hostile elements and be recovered or rescued from a threatening environment.

Sustaining Functions. All USAF intelligence activities require sustaining functions to keep them manned, equipped, housed, secure, and able to handle immense amounts of data and to communicate timely, accurate, useful results to users. These sustaining functions are typically managed through plans and programs, system development, and security management offices at the Air Staff, SOAs and MAJCOM headquarters.

- Planning and Programming. First of the sustaining functions is the planning and programming necessary to ensure future intelligence capabilities and operations adequately satisfy user requirements. The capstone of all USAF intelligence planning is the Air Force Intelligence Plan, which provides terminology, functional description, and goals and objectives for planning developments in all USAF intelligence systems. In addition, the AFIP establishes the structure for supporting plans and architectures developed by HQ USAF, the MAJCOMs, DRUs and SOAs. These supporting instruments provide the detailed guidance for development of HUMINT, IMINT, SIGINT, automated data processing, communications, research and development, personnel, manpower, training and other capabilities. Problems commonly worked by planners include system survivability and effectiveness in combat, interservice support, available technology versus approved funding, collection-production system balance, and ADP and communications interface issues.

With these plans providing overall program direction, the commands and agencies forward their intelligence resource requirements via the Program Objective Memorandum, budget submissions, Statements of Need and similar documents. Resource managers at the Air Staff, DIA, NSA and OSD may then use the AFIP and its supporting architectures to assess individual program initiatives and the expected payoff in terms of user support for each funding alternative.

- Intelligence Systems Development. The Air Force relies heavily on a close bond between the intelligence and research and development communities to develop and field new intelligence systems and capabilities. Increasing demands for accurate, timely, and all source intelligence information require continuing emphasis on the early definition of requirements and the application of emerging technologies to intelligence collection, processing, exploitation, and dissemination. The Air Staff, AFIS, MAJCOM headquarters and Air Force Systems Command's product divisions are major participants in requirements definition and development of new systems. In addition to the development of acquisition and production capabilities, there is a concerted effort to obtain the ADP and communications capabilities required to sustain Air Force intelligence system.

- Personnel, Manpower and Training. Management of people is a major responsibility for all intelligence activities. Although the All Volunteer Force policies continue to obtain sufficient numbers of entry level officers and enlisted personnel, our intelligence force has experienced problems common to most defense organizations. For example, nearly 40 percent of intelligence officers are lieutenants and 55 percent of enlisted personnel are first term airmen or cross trainees to intelligence. Such inexperience is partially offset by Air Training Command schooling and by other specialized training such as TAC's Advanced Tactical Intelligence Course at Nellis Air Force Base, Nev. Moreover, on-the-job training provides invaluable experience for many Air Force intelligence people, while exercises such as Team Spirit and Cold Fire offer unique combat intelligence training.

- Security Management. A final sustaining function is the security management provided by our Air Force Special Security Offices. Supplementing the collateral information security program of the Air Force Office of Security Police, AFSSOs establish policy and oversee administration of material, communications and personnel to ensure the proper handling of sensitive compartmented information.

Payoff. These USAF intelligence activities offer a substantial payoff to both peacetime and wartime users of intelligence. The following examples represent end results which Air Force intelligence strives to attain:

- Peacetime. Intelligence offers its users perhaps as much support in peacetime as during hostilities. The potential includes:
- Fewer technological surprises by foreign research, development acquisition activities.
- Improved design coordination and justification for U.S. weapon system research, development and acquisition.
- Closer relationships with allies.
- Better rationale for foreign military assistance programs.
- People knowledgeable of the Threat.
- More complete operational planning.
- Aircrew readiness.
- More realistic exercises.
- Verification of foreign compliance with arms agreements.

Continued on page 25.

"Flightline mission debriefing by TAC wing intelligence"

U.S. Marine Intelligence

Interdependence of Service Intelligence Elements

The Marine Corps is both pleased and privileged to contribute to this special issue of **Military Intelligence** highlighting the intelligence capabilities and interdependence of the services. Our traditional relationship with the Navy remains as strong as ever in the amphibious and maritime environment. Rather than a limitation, this relationship has always caused the Marine Corps, as a way of life, to focus on the interoperability segments of joint and combined operations. In such operations, the demands for responsive intelligence support can only be met by coordinated and mutually supporting contributions of the four services and their allies.

Last October, the Marine Corps had the opportunity to participate in the Army's Intelligence and Electronic Warfare Systems Program Review at Fort Huachuca, Ariz. This special occasion, which brought together over 50 Army general officers and the senior officials of the U.S. intelligence community, focused on the interdependence of service intelligence elements. The Marine Corps' presentation identified several areas where mutual support was possible when Army and Marine commands operated in adjacent sectors. SIGINT operations could be coordinated for optimum coverage; ground sensor output could be shaped; counterintelligence and security plans coordinated, integrated, and optimized; Marine Corps tactical aerial reconnaissance aircraft could

Brig. Gen. Lloyd W. Smith, Jr., Director of Intelligence, HQMC.

support adjacent forces; and imagery processing and interpretation facilities could be mutually supporting. This potential for intelligence coordination and interaction on the battlefield results from a long association of the Marine Corps with the Army's intelligence training centers and research and development establishment.

Since the end of World War II, the Marines have been trained at the Army's intelligence schools, initially at Fort Riley, Kan., then at Fort Holabird, Md., and today at Fort Huachuca, Ariz., and Fort Devens, Mass. Readers may recall that the 1st Marine Division at Inchon, Korea, and the Chosin Reservoir in 1950-51 were supported by an Army CIC detachment, augmented by a handful of Marine Corps counterintelligence specialists. The superb support of the 441st CIC Detachment in Korea provided the impetus for the development of a Marine Corps counterintelligence capability in the early 1950s.

Marine Corps intelligence has progressed dramatically since those years. Much of our progress can be attributed to the support intelligence training establishments of the Army, Navy and Air Force. This long tradition of interservice intelligence cooperation and training is the foundation of the Marine Corps capability to conduct effective intelligence operations in the joint service environment.

Our intelligence interdependence does not stop in the training centers. Today, Marines serve with the Naval Security Group performing cryptologic operations, as analysts and imagery interpreters with the Fleet Intelligence Centers, and as intelligence staff officers on all major fleet staffs. Marine imagery interpreters serve with the Air Force's 497th and 548th Reconnaissance Technical Groups in Germany and Hawaii; Marines serve with the Army's Intelligence and Security Command in several overseas locations; and Marines serve on the J2 staffs of our unified commands. When these intelligence specialists return to the Marine Corps commands, they bring back to the Corps a wide range of experience and understanding of sister service capabilities which directly translates to improved Marine Corps intelligence capabilities.

In recognition of the interdependence of service intelligence capabilities, the fiscal year 1983 edition of the Marine Corps Master Intelligence Plan includes separate annexes devoted to Marine Corps intelligence interaction with the Army, Air Force and Navy. We look forward to the contributions of the other services to make this portion of the MCMIP a road-map for more effective bilateral and joint intelligence operations.

No discussion of service intelligence interdependence would be complete without mention of the necessarily close relationship in intelligence system development and acquisition. While the imperatives of interoperability affect all service developments, Marine Corps interest in joint development has even deeper roots. Marine Corps research and development philosophy is based on exploiting efforts of the other services to the maximum extent possible and confining our independent research and development to that equipment uniquely applicable to our amphibious mission. Thus, our Intelligence Analysis Center—an outgrowth of the Air Force TIPISPO effort—is compatible and interoperable with the intelligence centers aboard Navy surface combatants and the Naval Intelligence Processing System data bases. Our imagery interpretation facility is basically identical with Army and Air Force systems. The Team Portable Direction Finding system which will shortly enter the inventory of the radio battalions is a joint procurement action with the Army. Our All-Source Imagery Processor will exploit technology of the Army's Interim Tactical Imagery Exploitation System. These examples clearly demonstrate the close system-related interdependence of the service intelligence agencies.

The ultimate test of combat intelligence effectiveness, however, is on the battlefield. Marine Corps intelligence planning for operations in the NATO environment, Korea, Southwest Asia, and other potential trouble spots envisions mutual support and close and continuous interaction with the other services' intelligence elements. Our goal is simple—provide the tactical commanders with the necessary intelligence, from all possible sources, to defeat the enemy with minimum friendly casualties. We will continue to work together to meet that goal.

Marine Corps CH-53E lifts AN/TYQ-12 (Imagery Interpretation segment of MAGIS)

Marine Corps Intelligence

"Intelligence is the foundation on which the operational effort is built, the basis on which training, tactics and many equipment requirements are founded."

As evidenced by this doctrinal statement from Fleet Marine Force Manual 2-1, ***Intelligence***, sound and timely intelligence for the operating forces of the Marine Corps is an integral factor in the planning and execution of Marine Corps missions worldwide. The mission of the Marine Corps intelligence is to support commanders at all echelons in the conduct of operations. Marine Corps intelligence differs from the services in that we have neither departmental or delegated intelligence production responsibilities. The Marine Corps, through equal status on the Joint Chiefs of Staff, is represented and its concerns voiced on departmental and Cabinet issues by the Commandant of the Marine Corps. The Marine Corps' primary intelligence emphasis is directed toward the Fleet Marine Forces and their task organized Marine Air-Ground Task Forces. To influence, establish doctrine, and provide intelligence support to these MAGTFs, the Marine Corps, through a triad of organizations, ensures timely and sound intelligence is available to operational commanders.

Marine Corps Intelligence Triad

Marine Corps intelligence traid is comprised of Headquarters Marine Corps, the Marine Corps Development and Education Command, and the Fleet Marine Forces.

The Director of Intelligence, Headquarters, Marine Corps, serves as the Commandant's principal intelligence staff officer and functional manager for intelligence and cryptology. To assist in this mission, the director of intelligence has a special assistant, a deputy director and a staff of officers of the intelligence division's five branches covering the functional areas of counterintelligence, plans and estimates, signals intelligence and electronic warfare, intelligence management (personnel, training, and research and development), and national intelligence activities (including the TENCAP program). This element of the triad contributes policy direction, resource management, and support to the Commandant and his immediate staff.

The Marine Corps Development and Education Command provides support in the areas of research, development, education and training. MCDEC is divided into two centers: the Development Center which conducts research and development in intelligence, counterintelligence and signals intelligence, conducts studies, develops doctrine and maintains liaison with other service research and development agencies; and the Education Center which, as part of its overall educational mission, conducts a Soviet Threat program, TENCAP electives and intelligence instruction at each of the various schools.

This leg of the triad, then, provides the educational, doctrinal, and research and development basis both for the HQMC policy and planning function and for the key element of the triad, the Fleet Marine Forces.

The Fleet Marine Forces contain the operational intelligence capability which support Marine Air-Ground Task Forces in combat operations. MAGTFs are combined arms forces consisting of:

- **Command and Control Element**
- **Ground Combat Element**
- **Air Combat Element**
- **Combat Service Support Element**

MAGTFs take full advantage of the combat potential inherent in a closely integrated air-ground logistics team, under direction and control of a single commander. A MAGTF can operate as a naval entity, part of a joint or combined task force or as a uni-service force remaining ashore. The MAGTF can be deployed by sealift, airlift, or both. The Marine Amphibious Force, the largest MAGTF, consists of a Marine division, a Marine aircraft wing, and a force service support group. The Marine Amphibious Brigade consists of a regimental landing team, a Marine aircraft group, and a brigade service support group. The smallest MAGTF, the Marine Amphibious Unit, consists of a battalion landing team, a composite aircraft squadron, and a MAU service support group. All of these MAGTFs are task organized to perform a specific mission and can vary in organization or equipment to uniquely meet mission requirements. It is a Marine Amphibious Unit which has comprised the American element of the Multi-National Force in Lebanon since late 1982.

National Intelligence

Headquarters Marine Corps is an active participant in Defense intelligence and the national intelligence community. In 1979, the Marine Corps was granted observer status on the National Foreign Intelligence Board, chaired by the Director of Central Intelligence and comprised of senior intelligence officers from CIA, NSA, DIA, the services, FBI and other special organizations. NFIB membership allows the Director of Intelligence to keep the Commandant and HQMC staff informed on the highest priority intelligence issues; influence collection and production priorities to ensure support for operational commanders; inject Marine Corps views into the intelligence budget deliberations; and ensure that Marine Corps intelligence programs are compatible and consistent with national programs. The Director of Intelligence also sits on the Military Intelligence Board. This group, chaired by the Director of DIA, constitutes the senior military intelligence forum and offers a superb opportunity to ensure proper representation and contribution of Marine Corps views on all important defense intelligence issues.

Marine Corps intelligence participation in the JCS arena includes the review of JCS actions for intelligence implications, the processing of intelligence agenda topics, the review of U&S command intelligence annexes, and participation in various working groups. Involvement in processes such as the establishment of intelligence collection and production priorities, the development of threat estimates, and the development of plans covering the full spectrum of intelligence disciplines, contribute to responsive support both to the Commandant of the Marine Corps and the deployed operational forces.

Tactical Intelligence

Marine Corps tactical intelligence capabilities are developed and structured to support tactical operations in all geographic areas independently or in conjunction with any combination of other U.S. or allied military services. As part of the Navy-Marine Corps team in its traditional amphibious role, the Marine Corps must operate in close and continuous coordination with fleet elements. In its ground combat role, the Marine Corps shares many common intelligence requirements and responsibilities with the U.S. Army. In providing intelligence support to the Aviation Combat element of the MAGTF, the Marine Corps must perform many intelligence functions similar to those performed by the U.S. Air Force. With its integrated logistics organization, it has the same intelligence requirements on a smaller scale as such unique organizations as beach and post organizations, legal services (law of war), rear area security, etc. In view of the above, the Marine Corps—perhaps more than any other service—must be prepared to operate in a joint service intelligence environment. Accomplishment of these joint service intelligence functions is facilitated by the Marine Corps use of Army, Navy, Air Force and Defense intelligence schools to train and educate its intelligence specialists.

Although the Marine Corps is capable of performing many types of missions as a quick-reaction, general purpose force, its primary and most difficult task is forceable entry in an amphibious mode. Accordingly, the primary focus of tactical intelligence is to provide intelligence support to Marine Corps tactical commands engaged in the training, planning or execution of amphibious operations with provisions for sufficient flexibility to support a broad range of missions, worldwide, that the Marine Corps must be prepared to undertake.

Intelligence Collection Assets

Fleet Marine Force intelligence collection assets include the MAGTF intelligence staffs, force reconnaissance companies, division reconnaissance battalions, Marine aircraft squadrons (EW, photo and observation), force imagery interpretation units, interrogator-translator teams, counterintelligence teams, sensor control and management platoons, surveillance and target acquisition platoons, radio battalions, and inherent collection capabilities of all tactical units. These assets are discussed in the following paragraphs.

Reconnaissance Elements

The Force Reconnaissance Company conducts pre-assault and distant post-assault reconnaissance missions within the amphibious objective area. Submarines, high-speed transports, parachutes and helicopters may be used. The Division Reconnaissance Battalion conducts ground reconnaissance and observation in support of a Marine division or its elements. Helicopters provide the degree of mobility required for reconnaissance of large areas.

Imagery Intelligence

Imagery intelligence capabilities are provided by the Marine Tactical Reconnaissance Squadron (VMFP-3), Marine Observation Squadron (VMO) and the Force Imagery Interpretation Units. VMFP-3, consisting of 21 RF-4B high performance aircraft, has a multi-spectral capability enabling acquisition of optical imagery, side-looking airborne radar and infrared information. The squadron has the mission of acquiring requested airborne reconnaissance information that can be satisfied by imagery. Once they have the information, they process the raw film data and deliver the film medium to the Force Imagery Interpretation Unit for exploitation.

The Force Imagery Interpretation Unit possesses the computer assisted exploitation segment of the Marine Air-Ground Intelligence System, the AN/TYQ-12. This imagery interpretation facility is capable of exploiting all imagery that can be acquired by both organic Marine Corps assets as well as film mediums from strategic and national sources. The FIIU's resident within each of the three aircraft wings produce imagery interpretation reports, various imagery intelligence studies and provide support to Fleet Intelligence Centers delegated intelligence production tasks.

The Marine observation squadrons conduct visual aerial reconnaissance, aerial radiological reconnaissance, and limited low-level aerial photography using OV-10 aircraft. Its capabilities are further enhanced by a forward looking infrared system. The relatively low speed of the OV-10s render them superior to high-performance aircraft for close reconnaissance and observation support of ground combat units.

Interrogator-Translator Teams

Interrogator-Translator Teams have the responsibility for the exploitation of human resources and documents of intelligence interest. ITTs are organic to the Headquarters Battalion, Marine Division, or Headquarters Company, 1st Marine Brigade and operate under the staff cognizance of the Assistant Chief of Staff, G2.

There are 19 ITTs in the regular establishment and six ITTs in the reserves. Each team consists of one officer and ten enlisted personnel. ITTs are currently assigned target language designations to support current contingency plans worldwide. Individual language proficiency levels vary according to the

EA-6B Prowler of VMAQ-2

Interior of AN/TSQ-54 Heavy Intercept Van

amount of training received and recent experience. All interrogation-translation personnel are school trained in interrogation, with additional training as analysts at the intelligence courses offered by the Landing Fleet Training Center Atlantic, Little Creek, Va.

Counterintelligence

The mission of Marine Corps counterintelligence is to provide tactical CI support to the Marine commander. Marine Corps CI elements plan and implement those measures designed to discover, neutralize or destroy the effectiveness of actual or potential hostile intelligence collection, sabotage and subversive activities, and to provide necessary protection of information against espionage, personnel against subversion and terrorism, and installations and material against sabotage.

To accomplish the stated mission, the Marine Corps has 11 active and three reserve CI teams. Three CI teams are normally assigned to each Marine Amphibious Force to provide tactical CI support and one team each to Headquarters, Fleet Marine Force, Atlantic (FMFLant) and Pacific (FMFPac) to provide general CI support. In a tactical situation, Marine Corps CI teams conduct active and passive CI operations such as counterespionage, countersabotage, countersubversion and counterterrorism; operations security support; concealment and deception operations; security discipline; and a full range of security services including Technical Surveillance Countermeasures. Also, Marine CI teams have the capability to conduct intelligence collection operations using human intelligence sources. In garrison, the MAF CI teams may be attached to Marine divisions and aircraft wings to train for their combat mission, participate in field exercises and provide garrison CI support.

Marine Corps CI personnel attend the Officer Basic Course at Fort Huachuca, Ariz. To ensure that Marine CI personnel possess the capability and training to counter the ever-increasing hostile intelligence threat, CI personnel are afforded an opportunity to attend a variety of 18 additional counterintelligence and intelligence related courses.

Sensor Control and Management Platoon

The Sensor Control and Management Platoon (SCAMP) is organic to each Marine division. The purpose of SCAMP is to provide the MAGTF commander with the capability to exploit tactical remote sensor derived intelligence information. The unit is under the operational control of the division G2, who plans for and directs sensor employment. The SCAMP uses tactical remote sensors which can be inserted clandestinely by hand or by tactical aircraft to monitor areas controlled by enemy forces. In that sensors are expendable and can be emplaced in large numbers, they become low-grade targets for the enemy to jam or destroy.

Surveillance and Target Acquisition

The Surveillance and Target Acquisition Platoon is part of the Headquarters and Service Company of the Marine infantry battalion. It is comprised of a platoon headquarters, a radar section, a night observation section and a scout section. The STA platoon provides an electronic surveillance capability through the use of ground surveillance radars and low-light intensity observation devices. The attachment of STA platoon elements to rifle companies may be desirable when such an attachment will contribute to the collection mission.

Signals Intelligence

Marine Corps active force Signals Intelligence Electronic Warfare resources are located within four organizations: the First and Second Radio Battalions, the Marine Tactical Electronic Warfare Squadron Two (VMAQ-2) with 15 EA-6B aircraft, and the Marine Support Battalion. Additionally, Marine SIGINT/-ground EW reservists are organized into four Reserve Augmentation Units under the operational control of the Director of Intelligence, Headquarters Marine Corps, who also exercises staff cognizance over all Marine cryptologic matters. Marine Tactical Electronic Warfare Squadron Four (VAMQ-4), equipped with four EA-6A aircraft, composes the Marine Corps Aviation Reserve Unit.

The mission of the radio battalion is to conduct tactical SIGINT/ ground EW and transmission security monitoring/analysis in direct support of the MAGTF commander and other supported commanders. The battalions are organized to facilitate training and to provide for rapid structuring, sizing and operational deployment of task-organized Direct Support Units. When called upon to operationally deploy, the battalions or elements thereof are task-organized into DSUs designed to provide the specific support required. The general formula used to structure a DSU is: supported force requirements plus electronic threat equals direct support provided. That support may include the capability to search for, intercept, locate, analyze, report and/or jam hostile emitters, as well as a special security communications capability for dissemination of SI message traffic.

Marine Tactical Electronic Warfare Squadron Two (VMAQ-2) has the mission to conduct airborne EW in support of the FMF. The squadron is organized along functional lines to accomplish its diverse missions. It provides detachments as required to stations and afloat units in support of FMFLant/Pac and Navy operations. VMAQ-2 is also capable of exploiting mission tapes and collected data within the squadron. Analysis and exploitation are conducted on the Tactical Electronic Reconnaissance and Exploitation Segment (TERPES) of MAGIS. TERPES process the raw mission data tapes so that they may be analyzed and exploited by EW analysts.

The Marine Support Battalion provides for Marine Corps participation in Naval Security Groups operations. The battalion also provides cryptologic/EW personnel to augment the radio battalions. The Support Battalion is headquartered in Washington, D.C., with letter companies assigned to Naval Security Group field sites throughout the world.

The cryptologic reserve force provides a ready reserve force for use in national emergency or war. The cryptologic reserve consists of four Reserve Augmentation Units; one RAU is assigned to First Radio Battalion and Second Radio Battalion, and two to Marine Support Battalion, respectively. The Marine Corps cryptologic RAU concept is relatively new (fiscal year 1982) and still evolving. Overall management of the program will be exercised by the Director of Intelligence who will assign Marine SIGINT/EW reservists to perform annual active duty training with the parent radio battalions, Company A, Marine Support Battalion, or as deemed appropriate. Both active and inactive duty assignments will be oriented toward enhancement of the operational capabilities of the commands and individual reservists involved.

The mission of the Reserve Marine Tactical Electronic Warfare Squadron Four (VMAQ-4) is to support strike aircraft and ground units by suppressing enemy electronic activity and obtain tactical ELINT. VMAQ-4 consists of four EA-6A aircraft with appropriate support personnel. Due to the limited number of aircraft, VMAQ-4 can fill the total requirement of a Maritime Prepositioned Ship's MAB. As an augmenting detachment, they could provide one-fourth of an MAF requirement or one-half of an MAB contingency.

Intelligence Processing

With this background on the Marine Corps intelligence collection assets, it is appropriate to discuss briefly significant developments in tactical intelligence processing.

A significant enhancement to Marine Corps tactical intelligence capabilities will be fielded in 1985. Named the Intelligence Analysis Center, it will be the heart of the Marine Air-Ground Intelligence System, and will satisfy a long standing operational requirement for a semi-automated tactical intelligence capability which will enable intelligence staffs to process large amounts of collected information into timely and accurate intelligence, quickly disseminate finished intelligence, and more effectively manage the collection effort. Information from currently fielded MAGIS subsystems such as the Imagery Interpretation segment and the Tactical Electronic Reconnaissance Processing and Evaluation Segment and from programmed future systems such as the Integrated Signals Intelligence System and the All Source Imagery Processor will be combined with information from conventional tactical assets, theater, and national sources and entered into the IAC for processing into intelligence.

Intelligence Dissemination

Recognizing that intelligence must reach the operational commander in a timely and secure manner, the Marine Corps is currently upgrading the AN/MSC-63 Special Security Communications Central. This upgrade will provide a high baud rate capability to ensure the rapid transmission of sensitive intelligence reports.

Tactical Exploitation of National Capabilities Program

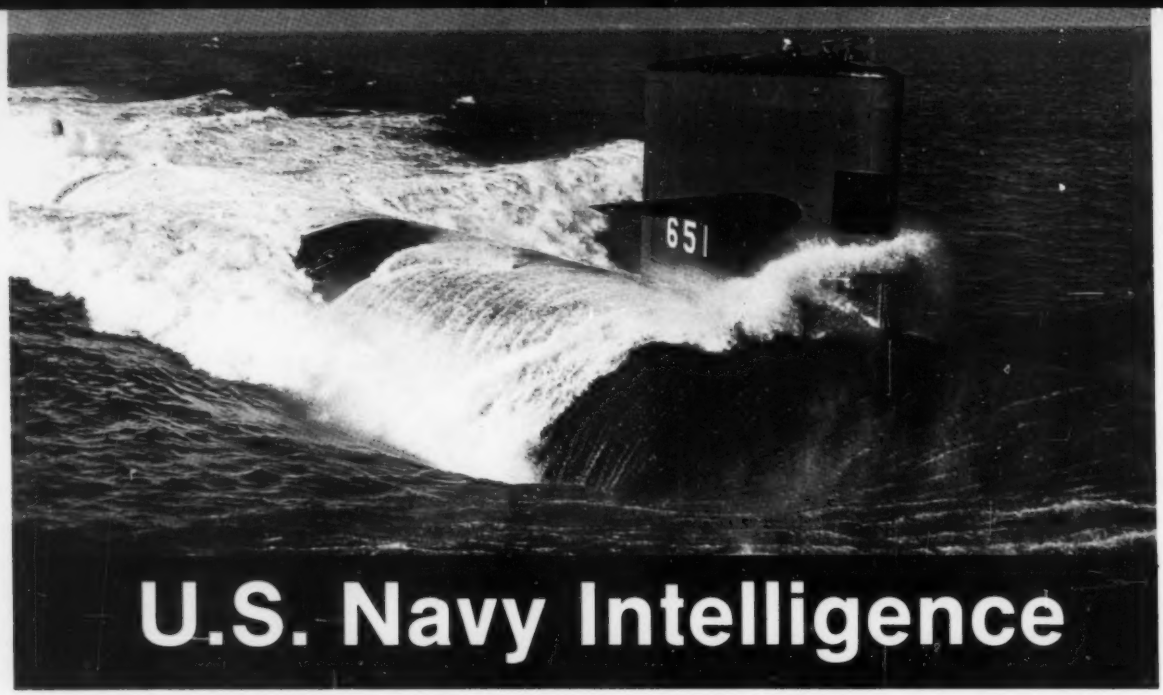
Marine Corps participation in the Tactical Exploitation of National Capabilities (TENCAP) program compliments our tactical collection assets. Marine Corps intelligence doctrine recognizes the need for information provided by higher commands to support echelons of landing forces with detailed intelligence. The opportunity for reconnaissance by organic assets may be restricted, however, especially in the movement and assault phases of amphibious operations. National systems have significant coverage capabilities worldwide with relatively low interface costs. For this reason, national systems provide unique support to Marine Air-Ground Task Forces as a complement to organic assets. The purpose of the Marine Corps TENCAP program is to exploit the current and future capabilities of national systems and to integrate these capabilities into the tactical decisionmaking process as rapidly as possible, down to and including the Marine Amphibious Unit. The MAU is specifically highlighted since it has a minimum organic reconnaissance capability and has a probability of being employed in a peacetime force presence or contingency role. The Marine Corps TENCAP program has established policies, plans, procedures and concepts for the exploitation of national intelligence systems by Marine Corps tactical commanders. Great strides have been taken to provide previously compartmented information to tactical levels.

National systems support to the MAU in Beirut, Lebanon, is a solid accomplishment. It demonstrates how far the Marine Corps has come, but also issues a challenge for the future. We must continue to improve national systems support to Marines as an integral element of our warfighting capabilities.

Conclusion

The challenge of Marine Corps intelligence is to support the Fleet Marine Forces as the nation's "force in readiness," prepared for a worldwide employment on short notice, over a wide spectrum of missions ranging from presence to forcible entry, unilaterally, with U.S. forces, allies, or any combination. With the range of collection assets, improved processing systems, and an enhanced dissemination capability, Marine Corps intelligence is prepared to support these challenging missions.

Typing abilities as well as a basic knowledge of computers and their functions are just two of the many skills required of cryptologists throughout the services.



U.S. Navy Intelligence

History

The U.S. Navy was in existence for 107 years when the Office of Naval Intelligence (ONI) was established in 1882.

A young lieutenant, Theodurus B. Mason, was assigned the task of "collecting such naval information as may be useful. . . in time of war as well as in peace." By General Order 292, the "Office of Naval Intelligence" was officially established under the Bureau of Navigation. However, Mason was given no funds to operate ONI and had to borrow civilian staff from other departments.

ONI survived this step-child status, and with the outbreak of the Spanish-American War in 1898, activity increased. The following year Congress appropriated $9,000 for eight personnel—five clerks, a translator, draftsman and laborer. Nevertheless, it really was not until World War I that ONI came into prominence. Starting in 1915 with 16 officers and civilians, ONI grew to 324 by Armistice Day in 1918.

A period of decline followed over the next two decades. By June 1939, with war clouds beginning to darken over Europe, the Director of Naval Intelligence, Rear Adm. Walter S. Anderson, began readying ONI to meet the challenge. He dispatched Naval attaches to places where none had ever been before and brought on board 225 Naval reserve officers to act as censors. A section was established to keep track of the world's shipping routes; the "Strategic Information Section" furnished information to the fleet, and the "Secret Intelligence Section" was formed to handle confidential agents.

Despite these measures, Anderson expressed concern that ONI was understaffed but he felt confident that the organization of Naval intelligence would be sufficient and effective.

By the following year, ONI had expanded its foreign

Naval Intelligence Director, Rear Adm. John L. Butts

collection capabilities. Naval observers, liaison officers and consular shipping advisors were assigned to various ports and other focal points around the globe. ONI mushroomed over the next four years into a recognized leader in intelligence gathering. Substantial collection and analysis efforts by ONI are well documented and made a significant contribution to the war effort.

In the years immediately following World War II there was a drastic reduction in the size of the operating forces and personnel but the need for intelligence actually expanded as the range of subjects requiring coverage escalated under the pressures of the cold war. In order to provide career opportunities for a selected number of World War II reserve intelligence personnel, a restricted line (special duty intelligence) designator 1630 was created.

The post-war era was also marked by several major reorganizations of the intelligence community with the most significant being the passage of the National Security Act of 1947. This required ONI to contribute to national-level intelligence products. In 1961 the formation of the Defense Intelligence Agency also heavily impacted ONI by assuming some of ONI's tasks and the overall supervision of departmental military intelligence.

The Korean conflict and the Vietnam era expanded ONI's mission. These, coupled with the exploding technological revolution made worldwide involvement the norm rather than the exception. Obviously, the need for intelligence support to fleet operations and to departmental and national decisionmakers increased enormously.

Current Structure

The current director of Naval intelligence is Rear Adm. John L. Butts. Before being named to this assignment in August 1982, he had served two years, wearing two hats, as deputy director Naval intelligence and commander, Naval intelligence command.

As the 52nd DNI, Butts heads an organization of 20,000 which has grown beyond anything Mason could have anticipated. In addition to six assistants and 13 department heads at DNI level, the office of Naval intelligence has three supporting commands:

- Naval Intelligence Command
- Naval Security Group
- Naval Investigative Service

Traditionally, the heads of these commands have also served concurrently as deputy directors of Naval intelligence as OP-009B (intelligence), as OP-009C (plans), and as OP-009D (security).

Mission

The DNI's mission is:

- To implement the responsibilities of the chief of Naval operations with regard to intelligence, cryptology (less signal security), security, counterintelligence (including counterterrorism), law enforcement, and investigative matters.
- To serve as the principal staff advisor to the secretary of the Navy and the chief of Naval operations in related plan, programming and policy matters.
- To represent the Department of the Navy on the National Foreign Intelligence Board and assist officials of the Department of the Navy in matters of protocol and liaison with foreign officials.

In support of this mssion, the DNI has 20 separate functions. These range from advising and assisting the chief of Naval Operations in exercising command responsibilities over the Naval Intelligence Command, the Naval Security Group and the Naval Investigative Service, to providing intelligence staff support to secretary of the Navy and the chief of Naval Operations.

The other major functions are:

- Exercises cognizance over law enforcement, counterintelligence, physical security and investigative matters.
- Formulates policy regarding multidiscipline security including the protection of classified material.
- Participates in providing national, joint, and Naval intelligence estimates.
- Formulates policy concerning special intelligence and special activities materials within the Navy.
- Exercises overall responsibility in matters pertaining to intelligence requirements, collection, production and dissemination.
- Coordinates and directs undersea warfare intelligence and collaborates in the conduct of related special programs.
- Ensures intelligence and cryptologic requirements of the operational commanders are met.
- Validates requirements for research and development, test and evaluation of systems, equipment and techniques relating to intelligence and other DNI functions.
- Assumes OPNAV program sponsorship of validated intelligence and cryptologic requirements.
- Coordinates program development for various programs of mutual interest with other appropriate offices within the Navy and Department of Defense.
- Exercises cognizance over Navy portions of the general defense intelligence program, the tactical cryptologic program, and program VIII cryptologic training resources.
- Provides liaison for foreign officials accredited to the Navy.
- Represents the Navy on the National Foreign Intelligence Board and other interdepartmental DoD, and joint service committees.
- Determines the effectiveness and responsiveness of intelligence and related functions to meet current, contingency and mobilization requirements.
- Collaborates with the chief of Naval personnel in establishing training, career development, and readiness programs relating to intelligence.
- Acts as principal point of contact with DIA, CIA, NSA, FBI, the State Department, other service intelligence agencies and foreign and domestic agencies as appropriate.
- Exercises program sponsorship for Naval intelligence processing system.
- Acts as senior intelligence officer of the Navy Department.

Commander, Naval Intelligence Command

The Naval Intelligence Command was organized in 1967 to implement the responsibilities of the director of

Naval intelligence in fulfilling the intelligence requirements and responsibilities of the Navy Department. NAVINTCOM currently employs 2,000 officers, enlisted and civilian personnel.

Four component commands produce and disseminate a wide variety of intelligence for NAVINTCOM. This intelligence includes such subjects as scientific and technical information, operational intelligence, ocean surveillance information, automation and telecommunication support and fulfillment of overt collection requirements. Commodore Chauncey Hoffman is currently commander, Naval intelligence command and deputy director for intelligence (OP-009B).

Commander, Naval Security Group

With command headquarters in Washington, D.C., the Naval Security Group routinely provides security, cryptology and electromagnetic support to fleet and national operations both ashore and afloat around the world. This task requires over 14,750 personnel, largely military. Rear Adm. D.H. McDowell, in addition to being the principal deputy director of intelligence, is also commander, naval security group command and deputy director for plans (OP-009C).

Director, Naval Investigative Service

The Naval Investigative Service is for the most part a civilian staffed law enforcement organization responsible for providing investigative support in matters involving serious crimes committed by or against Navy people. With more than 140 locations worldwide, its investigations into fraud and other criminal activities have saved the Navy millions of dollars in equipment loss or damage. NIS also has the responsibility for counterintelligence, counterterrorism, and security of information. NIS currently employs 1,350 personnel of which 770 are agents. Capt. P.D. Hoskins is both the director of the Naval investigative service and deputy director for security (OP-009D).

Naval Reserve Intelligence

Supporting this network of Naval intelligence professionals is a fully integrated reserve intelligence force. This resource of well trained specialists routinely uses its unique blending of Naval intelligence skills and civilian expertise in the solution of tasks that directly benefit both the office of Naval intelligence and the operating forces.

Training

While there is no place on the organization charts for training, this very important function is performed by, or under the aegis of the chief of Naval Education and Training Program Development Center. However, certain advanced intelligence training is provided to Navy personnel at the national level or through the facilities of other agencies.

That is a sketch of Naval intelligence as it exists today. Rear Adm. Sumner Shapiro, a former DNI, in his posture statement on ***The Naval Threat,*** August 1981, stated:

> "The evidence is most persuasive that—not withstanding the severe economic problems they face now and in the coming years—the Soviet leadership has elected to make a major capital investment in building and maintaining a navy and merchant marine that can project Soviet influence throughout the world. This maritime power represents a direct and growing challenge to the economic, political and strategic interests of the United States and our allies."

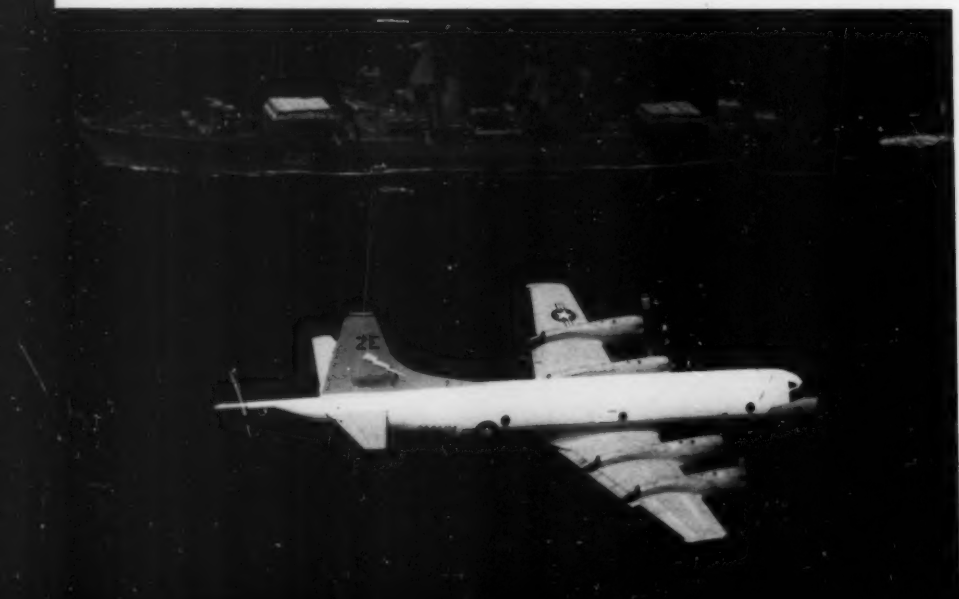
That assessment clearly has not been altered in the past two years. When Butts took command he emphasized that the "three things which interest me most are people, training, and fleet support." In a recent statement Butts amplified his remarks:

> "We have an extraordinarily talented group in Naval Intelligence. Our officers have records which cause members of selection boards to really take notice. The intelligence specialist community is as good a small group as you'll find anywhere in the Navy. Our civilians are standouts. Many of them are actively recruited away from us by other departments and agencies. All of us in Naval Intelligence take the excellence of our shipmates for granted . . ."

Naval intelligence is now 101 years old. Since World War II the story of Naval intelligence has become more complex with the expansion of technology and the addition of representation from other services and civilian agencies.

For the future, who can say what directions Naval intelligence may take? Just as Mason, the "first DNI," would be completely lost in today's intelligence environment, the intelligence specialist of the next century may look back with curiosity at the methods of the 1980's.

But one thing is certain and must never change. That is the total devotion to duty and service to our country that has always marked the people serving in Naval intelligence.



Pacific Ocean . . .A patrol squadron 17, VP-17, P-3B Orion patrol aircraft in flight in the vicinity of a Soviet "Kynda" class guided missile armed destroyer leader (light cruiser).

Tactical Air Reconnaissance

by Capt. Meredith Stewart

In spite of great progress made in the Tactical Exploitation of National Capabilities Program arena, the Army tactical commander still needs USAF Tactical Air Reconnaissance ("Tac Recce") support from Army imagery interpretation detachments stationed with the USAF flying units. This support is needed to provide continuous radar coverage of second echelon forces and photo, infrared, and radar coverage of gaps not covered by Army assets such as the OV-1D or Army TENCAP systems. This article discusses two of the many inter-related subjects concerning Army tasking, exploitation and dissemination of USAF Tac Recce: Doctrine and Peacetime Utilization and Training.

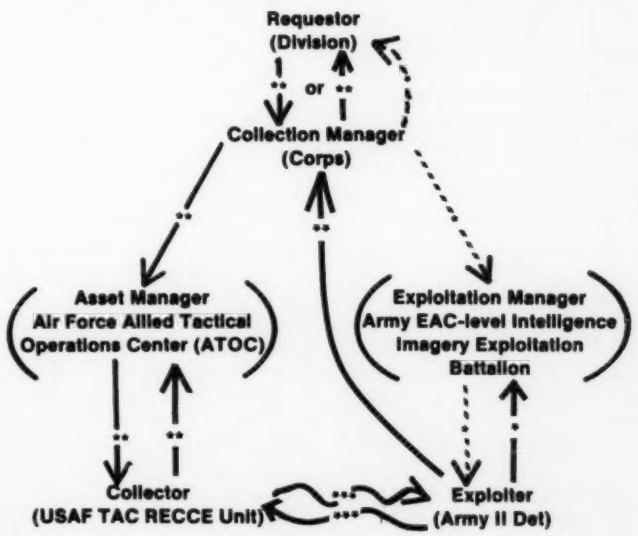
There is a great lack of current doctrine in this field. This lack is reflected in that the general intelligence community still refers to USAF Tac Recce support organization as ***"MIBARS,"*** even though there have been two complete changes in structure and subordination since 1978. Unfortunately, the only widely-known doctrine in the field today is contained in FM 30-20, ***Aerial Surveillance-Reconnaissance, Field Army,*** and FM 30-35, ***Military Intelligence Battalion, Aerial Reconnaissance Support.*** Both documents have remained the bibles of the Tac Recce field even though much of the material has been obsolete since at least 1978.

Until doctrine is updated, approved, and implemented through replacements for FM 30-20 and FM 30-35, Army II detachments charged with providing USAF Tac Recce support to tactical commanders will not be able to provide ideal support to them. There seems to be a light at the end of the tunnel in the form of the Echelons Above Corps Intelligence Architecture, but emphasis still appears to be on development of signals intelligence and new, high-technology imagery intelligence organizations.

Army planners need to consider three options for doctrine concerning Army exploitation and dissemination of USAF Tac Recce. First, if there is still a valid need for Army II detachments with USAF Tac Recce units, then doctrine needs to be developed to replace that currently available in FM 30-20 and FM 30-35. Or, if there is no longer a valid role for the II detachments, then doctrine should be changed to reflect this and the II detachments should be eliminated altogether. The currently assigned IIs both officer and enlisted, could then be used to man the proposed EAC II organizations. A third option would be to eliminate Army II detachments as separate entities, but develop joint "Purple" (Army-Air Force) II units using already established USAF doctrine and procedures.

Because of the current doctrinal void, neither USAF Tac Recce managers nor Army requestors and producers (the II detachments) know what doctrinal roles they are supposed to play, and must grope daily for a common agreement on each party's role. Consequently, expectations change with key personnel and doctrine is defined and redefined with debilitating frequency and effect. At II detachment level, this leads to chronic uncertainty; the doctrine and procedures worked out yesterday may not be accepted today. At higher levels—between Army requestor and Air Force collectors—the uncertainties lead to friction. When he asks for USAF Tac Recce support, the requestor all too often appears to have neither the understanding of the capabilities and limitations of USAF Tac Recce sensors nor the higher headquarters

USAF "TAC RECCE" CYCLE NODES (7)



* Information message only or informal coordination
** Action message or formal coordination
*** No message; informal coordination only

Black lines indicate requesting/tasking half of cycle.

Blue lines indicate dissemination of mission results.

priority for his request. This problem is heightened by the many echelons through which Tac Recce mission requests must filter, and by the lack of liaison between these echelons.

Assuming there is and will continue to be a valid need for II detachments, then the most effective way to train Army requestors, USAF Tac Recce units, and Army II detachments in their respective wartime tasks is to let them practice those same tasks in peacetime. Unfortunately, Army corps and EAC units do not request USAF Tac Recce support as often as might be possible; many tactical requestors appear to believe that the support provided by the II detachments working with USAF Tac Recce is not worth the effort required to get it.

As a result of under-utilization, neither USAF crews nor Army II teams get the experience necessary to become really proficient. A USAF Tac Recce pilot or navigator who is truly skilled in his trade is as rare as an Army II who is truly skilled in USAF Tac Recce work. Likewise, Army tactical intelligence personnel are probably not as proficient in all facets of managing and using USAF Tac Recce support as they might once have been. The results of a recent questionnaire indicate that few of the NCO's assigned to division and corps reconnaissance and surveillance shops—where requests have traditionally been formulated—have formal training in USAF Tac Recce (RF4-C) sensor capabilities or procedures for requesting USAF Tac Recce support.

As in all intelligence fields, "live" training is critical. Perhaps most importantly, the liaison and coordination functions suffer most without this training: Forward Air Controller control and coordination, communication/dissemination procedures, inflight report coordination, Army-Air Force coordination for film processing, crew debrief, and results reporting at the Air Base itself, all suffer without constant practice. Actual II "light table work" can be practiced by individual image interpreters and II teams, but the entire cycle can only be exercised with the full participation of all concerned parties.

What can the Army tactical commander/requestor do to ensure that he gets timely and accurate information from Army II detachments working with USAF Tac Recce? Ask for it. It's as simple, yet as complicated as that. Every Army tactical unit should make the effort to request USAF Tac Recce during every brigade and higher FTX, just as electronic warfare and other CEWI activities are practiced. Airspace management and multi-level/multi-service reconnaissance coordination need frequent attention too. Operating procedures should include detailed procedures for requesting and, depending on the echelon, coordinating USAF Tac Recce support.

With or without updated doctrinal guidance, the only way for tactical units to learn USAF Tac Recce management procedures is by practicing them, whether in a "canned" or "live" environment. Like any other tactical intelligence-producing organization, though, the II detachment's ability to perform under the pressures of real-world mission exploitation cannot be gained solely from "canned" exploitation practice. Individual skills can be taught; confidence and experience cannot.

Army II detachments co-located with USAF Tac Recce units are under-tasked for support to Army tactical commanders; detachment communicators have more of a day-to-day mission than do the image interpreters. As long as Army requestors do not request realistic USAF Tac Recce missions on a frequent, peacetime basis, corps and EAC intelligence analysts will not be able to practice true all-source fusion procedures and USAF Tac Recce and U.S. Army II units will not be able to practice the tasks needed to successfully acquire, exploit, and disseminate imagery for the Army tactical commander in wartime.

Capt. Meredith Stewart is currently attending the MI Officer Advanced Course. This article was written as a course project for the MIOAC. The author compiled information from personal experiences while an Air Reconnaissance Liaison Officer, interviewing tactical reconnaissance experts, and questionnaires answered by over 30 image interpreters from CONUS and USAREUR.

Counterpoint

Q. Combined services operation is critical to success on the AirLand Battlefield. "At what point are we now in achieving total coordination/cooperation at the joint level and with what results?"

A. We have periodically made significant strides in achieving cooperation at the joint planning level, however, we have a very long way to go before achieving anything near total or continuing cooperation at the operational level. There is tremendous need for greater interservice understanding throughout all commissioned and senior NCO grades. One way to achieve this understanding is to change the narrow nature of service commissioning programs and the follow-on professional school structure. Believe we in the intelligence and other support communities are farther along in this process than our average operational counterpart; however, there is and will continue to be an ever demanding need to educate new personnel as new situations arise. I am personally impressed with a growing expression of the need to overcome the "old" uniservice perspectives which if allowed to dominate our training and employment can do nothing except decrease the effectiveness of a fully integrated combined arms team: professional journals, such as *Military Intelligence,* are an important ingredient of this educational process.

Roderick J. Lenahan
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Nellis Air Force Base, Nev.

★

For the Oct-Dec issue, consider this question. Increased technological advances will assist intelligence operation on tomorrow's battlefield. How can we employ assets currently available to fulfill the intelligence role on today's AirLand battlefield?

JINTACCS

NOT A NEW ECONOMIC TAX PACKAGE

With the development of new reconnaissance and surveillance systems—as well as newer, faster means of telecommunications—the tactical intelligence community may soon suffer from an overload of data. One approach to streamline this data flow and storage has been the development of tactical command and control systems that can interface at the joint level. DOD has revitalized the Ground and Amphibious Operations program into the Joint Interoperability of Tactical Command and Control Systems. This latter program is now in the period of testing of new joint message formats. However, there are numerous implications to JINTACCS and it behooves intelligence analysts to be aware of these implications before JINTACCS becomes a fact of life within the Army.

by Col. William G. Hanne

Joint Interoperability of Tactical Command and Control Systems—JINTACCS—came into being in 1977 as an outgrowth of the Congressionally-mandated Ground and Amphibious Operations program. In 1969, tactical communications among the members of a joint operation were nonexistent and Congress directed the services to develop a program that would permit the services to exchange information and communicate with each other. GAMO's genesis was DOD Directive 4630.5, "Compatibility and Commonality of Equipment for Tactical Command and Control and Communications." This directive established DOD policy and procedures to insure that tactical C³ equipment possessed the degree of compatibility and commonality essential for joint military operations.[1] GAMO moved along quietly until 1976 when Congress discovered that direct and dependable communications among the services did not exist. In 1977, the Chief of Staff, U.S. Army, was made the executive agent for what is now known as the JINTACCS program, and a firm milestone schedule of test dates was established. Among the first functional segments of the new system to be developed was that of intelligence.

The JINTACCS program was ". . . designed to achieve increased interoperability and compatibility for the tactical command and control system of the services and defense agencies."[2] While originally designed to insure that command and control hardware items were compatible and could interface among all of the services and agencies (mainly the Defense Intelligence Agency and the National Security Agency), the program was modified in 1978 to a point where it became concerned primarily with message formats. Essentially, the hardware programs for nearly all of the services and agencies had gone through a series of program reductions, program reorientations, or program eliminations, leaving basically the software—or formats—for adjustment.

Working groups of subject matter experts were formed to determine the essential elements of information required by the tactical forces, and to determine the most logical and effective message formats which would contain those elements. Message formats were then established by the working groups and forwarded to the services for comment. Upon review, jointly acceptable formats were forwarded to the executive agent for testing prior to incorporation into the joint system. The executive agent established a Joint Interface Test Force at Fort Monmouth, N.J., to administer the compatibility and interoperability testing. Each service and agency established its own participating test unit at a location of its own choosing (the Army collocated its unit with the JITF at Fort Monmouth). Leased lines, in lieu of actual tactical communications links, were to be used for compatibility and interoperability testing, at least during the initial stages of the program.

The JINTACCS program was divided into five major functional segments: intelligence; air operations; operations control; fire support; and amphibious operations. The JITF's test design was to handle each group of operations-oriented message formats on a discrete basis throughout a prolonged test period and then to conduct an operational effectiveness demonstration on a biannual basis from 1981 to 1985. The OED's would eventually test all five functional segments on a gradually integrated basis.[3] SOLID SHIELD '81 was the OED for the intelligence segment of the JINTACCS; (SOLID SHIELD '83 tested the intelligence segment and the air operations segment together). As originally designed, when hardware programs came on line they would be integrated into the testing program. However, until that time, those forces involved in the testing or the OED would use leased lines and equipment-in-being.

These message standards will eventually become directives (similar to JCS Publication 12) for the exchange of joint service tactical information. These standards should then establish parameters for com-

puters, as well as manual systems, to reduce the system overload currently being experienced due to an ever-increasing flow of data.

Message formatting is not a new problem within the joint arena—nor is the need for a standardized format a recent discovery. There are publications or directives, bearing the authorship of the Joint Chiefs of Staff, in existence that spell out in great detail the format and protocols to be used when exchanging or requesting information in a joint environment. For example, in the intelligence arena, JCS Publication 12, Volume II, sets forth formats for a variety of intelligence messages. But of key importance is the fact that very few individuals are aware of JCS Pub 12 and even fewer commands follow all of the established procedures. During the pretesting stage, in an effort to establish baseline data against which the JINTACCS formats and data could be compared, CINCLANT and all active Army corps headquarters were contacted by the Army Test Unit (Doctrinal Planning and Evaluation Element) and copies of their operating procedures were obtained. (Corps headquarters, along with Marine Air Ground Task Force headquarters, were established as the interface points for joint messages and data.) JCS Pub 12, Volume II, generally was not listed as a reference document and the reports annex of each OPLAN and operating procedures provided a local format for the desired reports in lieu of the JCS Pub 12 format. (See figure 1 for representative listings.) This proliferation of local formats, codified in OPLANs and SOPs, illustrated the distinct need for standardization, especially as new automated means of storing and displaying data came on line.

The problem of information exchange was further exacerbated by the use of unit, command, and exercise brevity codes and abbreviations. Data storage and retrieval, to say nothing of correlation and display, was made literally an impossible task. The apparent solution to this growing problem in the joint arena was not to return to JCS Pub 12, but rather to take into consideration the parameters of the current information exchange situation which included the potential of bit-oriented messages, as well as character-oriented messages and ADP language and abbreviations already in use. (For example, the TACFIRE terminology already agreed to by Army and Marine Corps artillery fire direction doctrine was considered as a "given" in the equation for determining message vocabulary.) Once these factors were known, then the JINTACCS program would develop a system that was responsive to current needs, as well as one which could be expanded upon as technology advanced and new hardware items came on line. Simply stated, JINTACS was designed with that goal in mind.

In its system design, the principal thrust of the JINTACCS program has been to emphasize the automated man-readable, machine-processible aspects of messages. One of the critical issues that has surfaced is the difference between the Navy's stated desire for machine-readable messages, at the expense of the man-readable aspects,[4] and those desires of the Marine Corps and Army—to have the message capable of being read throughout the chain of command[5] down to the lowest-ranking private. This difference is based upon systems-in-being (or, in the case of the Marine Corps and Army, a lack of such systems) and experiences in the field. There has been movement to work out an acceptable compromise which will permit all users to meet their own specific needs.

Of greater significance is the need for DOD-wide adoption, in all services and agencies, and throughout all echelons of all services and agencies, of the JINTACCS formats and codes. Currently, the corps headquarters in the Army and the Marine Air Ground Task Force headquarters serve as the joint interface for test purposes—where inter-service data, regardless of its origin, makes its entry either into that particular service or into the joint arena. Simply put, data to be exchanged with either joint/task force headquarters and/or a sister service must be placed in a JINTACCS message format, using JINTACCS terminology, and JINTACCS protocols. (For comparison purposes, figure 2 is a HOTPHOTOREP in conventional format and beneath it, the same data is displayed in the proposed JINTACCS format.)

Message Name	JINTACCS Use (Collateral)	JCS PUB 12	CINCLANT OPLAN 2077	TF 120 OPLAN 2077	XVIII ABN Corps	V/VII Corps
DISUM	X	X	X*	X*		
INTSUM	X	X			X	X
INTREP	X	X				
HOTPHOTO	X	X	X*	X*		
MISREP	X	X	X*	X*		
TACELINT	X	X	X*	X*		
JTACARSREQ	X	X			X	
MIJI	X					
MSGCHANGE	X					
RII	X					
RRII	X					
SENREP	X			X		
JRSRR	X		X	X	X	
TACREP	X					
TARBUL	X					
TGTINFOREP	X					
PERINT		X		X*	X	
IPW		X		X*	X	
DOC		X		X*	X*	
SPOT REP			X	X	X	X
SUPINT					X	X
BOM/SHEL					X	X
TECHINTEL					X	X
A/C HOSTILE					X	
CI REP			X	X		
SAB ACT				X	X	
COMSEC						X
SIGINT						X
CENSOR						X

*Format shows local changes to JCS Pub 12 original.

Figure 1. Intelligence Reports

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The implication here lies in the degree of adoption of the JINTACCS formats and codes—either JINTACCS is reserved for joint interface use or it is adopted service-wide. If the former becomes policy, the ground services, with their RATT systems, will need a corps of "interpreters" at the interface point to translate from conventional language into JINTACCS and the reverse. The old days of "poking" a new header on the receipted message tape and retransmitting the message to other stations would be gone. In addition, under the stress of combat, confusion would reign supreme, especially in the JINTACCS arena where spacing and code use become dominate factors in message acceptability, all because of the requirements of the machine/computer interface and the lack of flexibility inherent in such an interface. The use of one format within the service and then the use of a second format for joint messages clearly is not in keeping with the principle of simplicity. The Army's decision apparently has been to adopt JINTACCS formats and language for use throughout the Army; however, a time schedule for this has not yet been established.

Simply stated, for information to be transmitted in JINTACCS format, that data must be organized in accordance with the established JINTACCS standards and rules. The messages themselves are comprised of items called "data fields." A grouping of data fields is called a "set." Specific entries are made in data fields within each type of JINTACCS messages. (The current listing of JINTACCS intelligence messages is provided in figure 3.) These data fields carry the same type of information currently used in preparing intelligence reports such as the INTSUM or INTREP. Thus, the information passed via the JINTACCS format is not different from that information passed though the current formats. The JINTACCS format is designed, however, for a more efficient transfer of information among users. The format does not relieve anyone of having to process that information into intelligence and eventually to disseminate the result.[8]

However, because of the joint nature of the format, the standards, rules, and vocabulary meet the combined requirements of each of the services and agencies. This "commonality" of language has led to the development of the Messages Element Dictionary, which provides the coded language to be entered in the data fields. For example, in figure 2, the JINTACCS HOTPHOTOREP had a data field entitled TGTTYP and one marked SUBTYP. The former data field was for the major category of "target type,"

CONVENTIONAL

```
O P 021530Z SEP 83
FM CDR II CORPS //CTOC-G2//
TO RUDMREA/COMUS JTF XLAND //TACC-INTEL//
INFO RUDAMRA/CDR 34 AF //TACC-INTEL//
BT
C O N F I D E N T I A L
EXERCISE SECONDSHOT
HOTPHOTOREP 007/DTG 021530Z SEP 83 (U)
1.  (U) 368-122
2.  (C) BOLLIENBURG NV181626 TO NV190634.
3.  (C) 021245Z SEP 83.
4.  (C) 16 XT-54/55 IN DEFILADE POSITION OVERLOOKING RIVER AT
NV182631, 24 X BMP ON HILL 29 AT 362815NO264516E.
5.  (U) H PAN, AREA COVERAGE.
6.  (U) GPPD, 80 PERCENT, 1/5000.
DECL 3 SEP 89
BT
```

JINTACCS

```
O P 021530Z SEP 83
FM CDR II CORPS //CTOC-G2//
TO RUDMREA/COMUS JTF XLAND //JIC//
BT
C O N F I D E N T I A L
EXER/EXERCISE SECONDSHOT //
MSGID/HOTPHOTOREP/II CORPS CTOC-G2/0902007//
AUTROPRO/C113/8309021530Z/XXXXXX/X/-/-/-/-//
COLLINFO/ZZ/-/AB2429/QUICK DRAW//
TSKDAT/REQNO:368/FRAG:122/OPORD:179//
PHOTODAT/PHOTIME:021245Z/AREACOV/GOOD/
SCALE:5000/PCTCOV:80//1AJ

/DE  FUNCT TGT-ID TGTTYP  SUBTYP  QTY EEICAT
/01  11111  B21687 VARMOR  VTANK   16   20
/02  11112  B21688 VARMOR  VPCA    24    21//
1AK

/DE TERRAIN-FEATURE-NAME                TARGET LOCATION//
/01 BOLLENBURG                          U32NV182 626 EST
/02 HILL 29                             L362815N0264516E ACT//
NARR/TANKS WERE DUG IN OVERLOOKING RIVER; TANKS WERE T54/55;
DWNGRADE/DECL  03 SEP 89//              APCS WERE BMP MODELS//
BT

                CLASSIFIED FOR TRAINING ONLY
                OTHERWISE CLASSIFIED
```

Figure 2. Comparison of Hotphotorep Message.

while the latter was for a "subtype." The entries under TGTTYP were VARMOR (vehicle, armored), while the subtypes were noted as VTANK (vehicle, tank) and VAPC (vehicle, armored personnel carrier). This breakout permits data processing systems and data banks to store this information by DTG and location for retrieval purposes at a later time. This use of such broad categories of target type and subtype leads to the major problem area for analysts under JINTACCS, that of reporting data of a specific nature such as model type or caliber.

Most JINTACCS intelligence reporting message formats do not provide formatted fields for operationally important information.To surface this information, the originator is forced to employ textual sets such as AMPN (amplification), NARR (narrative), or RMKS (remarks); the use of these textual sets negates the entry and use of such data into the data banks of correlation and use.[7] In figure 2, again, the HOTPHOTOREP used the NARR portion to elaborate on the type of armored vehicle noted in the formatted fields. However, the data stored within the appropriate banks would contain only the DTG, the target identification number, the target type and subtype, quantity, and location of the targets, but not the model types. Analysts will need to become aware of this characteristic and take it into account in both message preparation and receipt.

Inherent in the JINTACCS program is an implication for operations security. The patterning of mandatory and specific items within messages and the use of predictable terminology within the message formats will be an assist to both the enemy cryptanalyst and to the enemy traffic analyst. The inclusion of mandatory sets within the specific format (e.g., figure 2, JINTACCS Message Format, column TGT-ID—a mandatory use column: inclusion of an alpha-numeric combination indicates the basic encyclopedia entry, or lack of one if that be the case, for that specific location), whether these sets have data or not, can key the analyst as to the significance of either the data entered, or—as equally important— to the lack of data.

The training implications of the Army-wide adoption of JINTACCS has been raised from the very earliest stages of the testing program. Based upon experience in both a classroom environment (the Army Test Unit at Fort Monmouth) and a field environment (Fort Bragg prior to the 1981 OED), no major difficulties in training intelligence analysts to use and prepare messages in the appropriate formats were encountered. Training RATT rig operators in the spacing and protocols was also found to be relatively free of major difficulties. However, as with many things, there is both good news and bad news. The bad news is that we will have to make a concerted effort to change our ways; the good news is that the adoption of a JINTACCS format will preclude having to learn new formats, new protocols, and new procedures as one goes from unit to unit in the Army or when one is involved with joint operations.

There is a need for standardized and acceptable message formats with which members of a joint task force can exchange data. There is also a need for a program that will permit the marriage of man and machine-readable traffic. However, to be both, the message format and the language used with that format must be distinct, precise, and understandable by both man and machine.

Since the increase in the number of terminals, as well as the span of weaponry and reconnaissance means, those messages—and their content—must be able to be read, understood, and prepared by all echelons of command in all services and agencies. Coupled with the span of control and communications is the complexity and the speed of the projected battlefield, on land, sea, or in the air. Thus, the messages must transmit what is required by the decisionmaker, but not necessarily in the detail that the historian desires the day after the battle.

The increasing number of terminals has led to a corresponding increase in the span of communications intercepts. The desired system of formats, codes, and protocols must take that fact into consideration and develop procedures and devices that will insure the maxi-

	JINTACCS Abbreviation
COMINT Advisory Tasking Message	COMINTADTSK
Daily Intelligence Summary	DISUM
Hot Photo Report	HOTPHOTOREP
Intelligence Report	INTREP
Intelligence Summary	INTSUM
Joint Remote Sensor Report/Request	JRSRR
Joint Tactical Air Reconnaissance/Surveillance Request	JTACARSREQ
Meaconing, Intrusion, Jamming, Interference Feeder Report	MIJIFEEDER
Message Change Report	MSGCHANGEREP
Mission Report	MISREP
Request for Intelligence Information	RII
Response to Request for Intelligence Information	RRII
SIGINT/ECM Planning/Coordination Message	SIEPCM
Sensor Report	SENREP
Sensitive Information Report	SIREP
Sensitive Information Summary	SISUM
Tactical ELINT Report	TACELINT
Tactical Report	TACREP
Target Bulletin	TARBUL
Target Information Report	TGTINFOREP

Figure 3. JINTACCS Intelligence Messages (Collateral and Supplemental)

mum security benefits while lessening the security implications.

Thus, JINTACCS, for it to be meaningful, must be measured against the *needs* of the command, the complexity of decisions at that echelon, and the timeframe within which those decisions must be made—not the desires of the computer, the communicator, or the communications system.

However, the basic problem does not lie with the communicator—it lies with those who send and who receive, not those who transmit. The "killers" (to use the stock phrase that discriminates the rest of the combat and combat support arms from the signal community) have not been discreet nor precise in expressing their needs or their language. The communicator will send whatever the user gives him to send so the burden lies on the user—the burden to insure that the critical needs are taken care of in the messages being transmitted, that the language used is understood by both the sender and the receiver, that the reporting requirements are *reduced* to only those that are needed, and that all are disciplined enough to use the language and the formats and the automation available.

Our current system of different formats and different codes for different organizations may exhibit our independence, but it also illustrates a lack of discipline, an imprecise and inaccurate vocabulary, and definite OPSEC deficiency. Automation is here to stay, and it can serve us. If however, we refuse to acknowledge its presence and we refuse to train ourselves to use automation, to discipline ourselves and our language, then, as with fire (which is an excellent servant but a horrible master) automation and JINTACCS will be our masters.

Footnotes

1. U.S. Army Communication Research and Development Command, Army Test Unit, *Introduction to JINTACCS Message Formatting and Procedures,* Fort Monmouth, N.J.: U.S. Army, 1981, p. 1-1.
2. U.S. Dept of Defense, *Annual Report Department of Defense, fiscal year 1981,* Washington: 1980, p. 231.
3. Army Test Unit, p. 3-1.
4. U.S. Dept of the Army, JITF-JINTACCS, *Summary Test Report for Intelligence Functional Segment C&I Testing,* Fort Monmouth, NJ: U.S. Army, 1981, p. B-6-8.
5. **Ibid.,** p. B-3-38.
6. Army Test Unit, p. 2-6.
7. U.S. Department of the Army, p. B-6-4.

Col. William G. Hanne is currently the commander of U.S. Army Field Station Sinop, Turkey. He recently completed an assignment with the Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, Penn. He received a BS from USMA, an MS from the University of Illinois, and is a graduate of the USACGSC, DLIWC, the U.S. Army War College, and the U.S. Naval War College. He is co-author and principal editor of the ***Landscape Atlas of the USSR,*** and has had articles published in ***Military Review*** and ***Military Intelligence.***

Air Force - *Continued from page 9.*

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  - Principle of Defense. Combat air intelligence, such as tactical warning, defense analysis and information on enemy aircrew tactics, promotes a good defense, thereby enhancing operational readiness and combat force survivability.

  - Principle of Objective. Estimates of the enemy's most probable course of action provide commanders a basis for developing suitable military objectives and supporting strategy.

  - Principle of Economy of Force and Mass. Accurate, complete intelligence targeting, such as weaponeering and damage assessment, helps C^2 elements and tactical units to economize and mass their forces by prescribing the most effective application of available weapon systems.

  - Principle of Timing and Tempo. Responsive reporting of critical events by intelligence, such as threat advisory support to a Tactical Air Control System, permits faster action by U.S. and allied air forces to win the battle through maintaining the initiative.

Conclusion. Defense intelligence delivers critical information to reduce decisionmaking risks associated with national security policy and military force options. The worldwide resources of USAF intelligence contribute a significant portion of this information in supporting users from national through squadron level.

With user requirements defined and prioritized, the acquisition capabilities of Air Force intelligence provide a steady flow of information for the production and application of finished intelligence. Throughout the intelligence process, programs are designed to promote effective and efficient management of resources, while ensuring operating functions are adequately sustained.

When properly funded, led and tasked, intelligence offers its users substantial payoff in both peacetime and wartime. In the words of the ACS/I, Maj. Gen. Marks:

"Good defense intelligence that is properly applied does impact to the USAF as a force multiplier in peace and war. Intelligence that is slow acting, superfluous, misrouted, or otherwise inadequate, can impact as a force divider. Inadequate intelligence can congest communication lines, waste command decisionmaking time, and fail to prepare front line operators of our weapon systems. The USAF pays well in opportunity costs to fund its intelligence capabilities. We all have a personal responsibility to guarantee our commanders and their operational forces get their money's worth."

Replacing the OV-1 'Mohawk' with the A-10

By Capt. Lauran Paine, Jr.

The OV-1 "Mohawk" is currently the backbone of the U.S. Army's aerial intelligence effort. It has been a fine airframe for many years, 23 to be exact. Time and technology, however, are slowly rendering it impotent. Currently there is a joint service program to develop a new airborne battlefield surveillance radar called JSTARS. The thinking seems to be, "put it in the Mohawk." To put that radar in a 23-year-old airplane is both unsound and unwise. The time has come for an aerial platform change.

Let us look at some of the options: the U-21/C-12 type airframes. Allow me to be blunt; these are off-the-shelf civilian airplanes painted in Army colors. They are cheap by military standards, however, they give one the feeling the Army feels life is cheap also. They afford virtually no combat survivability. Sending flight crews to war in these airplanes is tantamount to sending them to their demise.

The XV-15 tilt-rotor seems to be a front-runner for an airborne intelligence platform. I have my doubts. I am suspect of its load carrying capability and its loiter time with a heavy load. I will reserve my final judgment, however, until all the facts are in. I am sure on two counts: one, it will probably be five to seven years before it can be operational in the field and, two, it is going to be expensive and expensive is not what Congress is in the mood to hear right now.

So where are we? The OV-1 is old and must be replaced. The U-21/C-12 and XV-15 airframes are not its replacement. We have new, sophisticated radar systems coming; we have an Aviation Branch coming. Through it all, airborne battlefield surveillance radar remains critical to the AirLand Battle commander. The time is ripe to do something very different from current SEMA norms to substantially upgrade MI aviation.

I propose forming a joint-service Aerial Intelligence Detachment using the U.S. Air Force A-10 "Warthog." First, let us examine the airframe and, next, the anticipated organization/utilization plan.

The Air Force A-10 "Warthog" is a proven, capable, survivable aircraft presently in production. Additional advantages are:

The A-10 will fly higher and faster than the OV-1. It has an approximate cruise speed of 300 knots (120 knots faster than the OV-1), and a higher service ceiling than the "Mohawk." The A-10 has proven its reliability and durability during several Air Force exercises in all manner of climates.[1]

With external tanks, the A-10 has an unfueled ferry range of approximately 2200 nautical miles into a 50 knot headwind. This makes it capable of reaching almost any staging base in the continental United States, without refueling. It is also air-refuelable, meaning that after an initial call-up and staging flight to a U.S. coastal location, it could then be ferried via Air Force KC-135 aerial tanker to an overseas location within a matter of hours. The A-10 is extremely deployable. On target, with external fuel tanks, the A-10 can easily loiter for three hours.[2]

The A-10 has state-of-the-art electronics including inertial navigation, forward looking infrared radar, low light level television, laser rangefinder, radar altimeter, and the Westinghouse WX-50 multimode radar. The WX-50 is capable of terrain following, ground mapping and threat detection.[3]

The N/AW A-10A is the two-seat, night, all-weather version of the A-10 which carries the above equipment and will be most adaptable to the reconnaissance mission. With the removal of the GAU-8A 30 mm nose gun, the space could be readily configured either at the factory or at a military conversion facility for conventional and/or infrared imagery equipment. The aircraft is capable of carrying 16,000 pounds of external load on 11 wing stations. This makes it easily capable of carrying any amount of SLAR equipment, including the antenna, without major modification.[4] The current manufacturer, Motorola, or the new

radar manufacturer would assist in the modification program. The rear cockpit would house the surveillance control heads.

Taking a hint from the Soviets (their reconnaissance aircraft are armed), the A-10 could also be armed while in the reconnaissance configuration. It could carry Sidewinder air-to-air missiles to reduce the vulnerability to the air-to-air threat during surveillance missions. The back-seater would be the officer responsible for collecting intelligence, calling inflight reports, jamming enemy air defenses and otherwise assisting the pilot in mission accomplishment.

The A-10 is a "hardened" aircraft, built to survive on the lethal, modern battlefield. Of the aircraft lost in combat during the Vietnam conflict, 62 percent were lost due to fire and explosion. Another 18 percent were lost due to pilot incapacitation. The A-10 is designed with these factors in mind.

During Red Flag '76-'77/Irwin II, A-10s flew against the simulated Threat. They were tracked on video tape machines through optical viewfinders of ZSU 23-4 and ZSU-57 anti-aircraft weapons. In 112 missions, the "enemy" shot down one with 23 mm, one with an SA-6 and three were lost to Aggressor Squadron F-5s using Soviet tactics. This is a good survivability in the demanding close air support mission. Stand-off surveillance is even more survivable.

The A-10 is a proven airframe of current technology. It can be configured for reconnaissance/surveillance with only minor modification. It can penetrate low or loiter high, gather intelligence and survive. It is available now. The Republic-Fairchild N/AW A-10A is the replacement aircraft for the OV-1.

Thus far it has been determined that SLAR is critical to the AirLand Battle. DoD is actively backing and pursuing the concept. It has also been determined that the OV-1 must be replaced and that it should be replaced by the A-10. The final problem to be solved is that of cost.

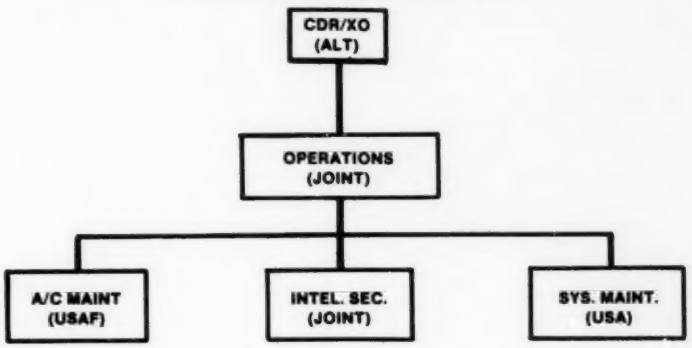
It is proposed that a joint-service Aerial Intelligence Detachment be formed using the N/AW A-10A. The first AID should be located at Davis-Monthan Air Force Base, Ariz., the U.S. Air Force A-10 training base. It will be formed jointly of Army and Air Force personnel, including aviators. Current A-10 close air support aircraft will be diverted to and configured for the reconnaissance/surveillance mission. The Air Force has stated on more than one occasion that it already has too many A-10s.[5] [6] By merely shifting assets already on hand, the budget or cost problem is essentially eliminated. An initial organization of approximately ten aircraft is envisioned. Follow-on AIDs could be formed to support the Rapid Deployment Force, one could be located in Germany, and one in Japan. While follow-on AIDs are in the formation stage, the first AID at Davis-Monthan would be deployable worldwide to support any corps or EAC.

The beginning stages of the program proposed thus far will be critical. The concept is sound, effective and workable. The question remaining is how does the Army sell it to the Air Force? We do so by beginning very unobtrusively on a trial basis. Then we "snowball." Through personnel channels, we assign an Army aviator to the U.S. Air Force A-10 qualification course at Davis-Monthan as an exchange pilot. We emphasize to the Air Force that in the interest of interservice cooperation, on a trial basis, we would like to train one of our aviators in one of their airplanes. (Inroads have already been made in this area. A USAICS officer recently received training in the A-10 simulator.) The other military services have routinely been conducting pilot exchange programs for years. The Air Force has not done so with the Army because they simply do not have a lot of respect for Army aviation. It is time they had some! The selected Army exchange officer must be exceptional. It will be his job to earn the respect of the Air Force as an aviator and as an officer. He not only must not fail, he must excel. Should he fail, the Air Force will reaffirm its lack of faith in Army aviation. Should he fail, the program will likely fail also.

Qualifications for the selected Army aviator will be high. He should be a senior Army, MI, aviator captain. (He will eventually command the first AID as a major.) He should have a minimum of 3000 hours fixed-wing flight time, 500 hours in the OV-1 and, if possible, 500 hours of pure jet time. He should have a minimum of three years reconnaissance experience in the OV-1. He should have experience in working with the U.S. Air Force. He should be a graduate of the MI Officer Advanced Course at Fort Huachuca, Ariz. The desired end product is intelligence, therefore thorough intelligence training is essential.

Once the individual has completed A-10 training and earned the respect of the Air Force, it will then be his job to begin forming the first AID with the assistance of USAICS as the Army proponent agency. In cooperation with the Air Force, he will secure a work area facility and begin building the organization. He will write the mission scenario and

AERIAL INTELLIGENCE DETACHMENT



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Soviet Military Intervention in Eastern Europe

Since the Death of Stalin

by Col. Richard S. Friedman

Conclusion

The first part of this article appeared in the April-June 1983 issue.

The 1968 crisis in Czechoslovakia began in January when Antonin Novotny, the Stalinist Czech party leader, was removed from his post and replaced by Alexander Dubcek, the party leader in Slovakia. Novotny's dismissal was occasioned by internal party dissatisfaction with his inherent conservatism and a resurgence of Slovak nationalism as well as considerable pressure from party intellectuals for greater political freedom. It is obvious that the situation in Czechoslovakia was quite different from the earlier scenes in Poland and Hungary. There was virtually no popular involvement in the proposed changes and there were never any violent demonstrations.

The main features of the "Prague Spring" were a vigorous program of political reform, lifting of censorship and a relaxation of both bureaucratic and police repression. Brezhnev and other Soviet leaders had made an early decision to abandon Novotny to his fate and, initially, remain aloof from Czech internal party contentions.

In March, however, Dubcek was told by the Soviets that the process of liberalization was "going too far." After more months of temporizing, as well as application of increasing political and military pressure, Soviet and Czech leaders met in consultation during July. The Soviets quickly perceived Dubcek to be unwilling or unable to enact the severe measures they demanded, and within a few days the Soviet leaders decided to act. During the night of 20 August, Czechoslovakia was occupied by substantial Soviet forces augmented by Polish, East German, Hungarian and Bulgarian troops. The political situation proved to be more difficult and was complicated by the fact that there had been no request for military action by any of the Czech leadership. It was not until April 1969 that Gustav Husak was installed as the new Czech leader.

Although the crisis in Czechoslovakia occurred 12 years after the 1956 crises in Poland and Hungary, Soviet objections were nearly identical in all three cases. The leaders in Moscow wanted to maintain, or to restore, the maximum socialist orthodoxy of the Soviet type, i.e., party monopoly of all power as well as a pro-Soviet majority within the party leadership. The objective of having a pro-Soviet party leadership was the major motivation for the Soviet military intervention in Czechoslovakia. Brezhnev also desired the Czechoslovakian press to be strictly censored in order to prevent expression of any liberal or anti-Soviet views. From contemporary reports, we learn that it is likely that Moscow would have compromised on some issues, particularly economic ones, if Dubcek had been able or willing to comply with the major and non-negotiable demands.

Moscow's ability to achieve its objectives in Czechoslovakia was complicated by several other factors. Unlike the case in Poland, where Khrushchev initially had opposed Gomulka only to rely upon him later, Brezhnev had already decided to abandon Novotny and accept Dubcek. Czechoslovakia was also unlike Hungary where a total collapse of Communist power had demanded a quick decision. There were no demonstrations associated with the "Prague Spring," and the Czech party leadership was in complete control throughout the situation with no direct threats to Soviet interests ever apparent. Also, unlike Poland and Hungary during 1956, the Soviets had no military forces inside Czechoslovakia in 1968 and any military pressure had to be moved into the country or applied from outside. At the end of May, the Soviets brought some troops into Czechoslovakia for Warsaw Pact maneuvers. These troops remained for more than two months after the completion of training, however, the relatively small size of the contingents apparently contributed to the minimal impression they made as an instrument of pressure on the Czechoslovakian leadership.

During March, April and May, East German and Soviet press

commentaries increased their criticism of "anti-socialist" and "counter-revolutionary" activity. On 3 July, in a statement clearly presaging the "Brezhnev Doctrine," Andrei Gromyko said:

> "Those who would like to break even one link in the chain of the socialist commonwealth are vain and shortsighted. This commonwealth will not permit it."

In his reminiscences, Gomulka indicated that the Soviet decision to intervene in Czechoslovakia was deferred "to the last moment." Preparations for intervention, however, began in early April, when Soviet military personnel began to visit Prague and other cities in large numbers as "tourists." The military maneuvers of June and July screened other troop movements. When the invasion finally came, on 20-21 August, a very large number of troops were involved, perhaps as many as 400,000, of which three-fourths were Soviet. The role of the Poles, East Germans, Hungarians and Bulgarians was not a significant one, but demonstrated political rather than military support. The tactics employed were the same as those used in Hungary, 1956: immediate seizure of airports and other key communication facilities, as well as traffic circulation.

Today we can see in each of the cases examined that the Soviet military interventions achieved their desired political objectives, although at the time the objectives may have appeared to be somewhat obscure. All three cases demonstrate that the possibility of Soviet military interventions, whether under Stalin, Khrushchev, Brezhnev, Andropov or his successor, must remain a continuing possibility for all the nations of Eastern Europe. Military intervention is not a simple or automatic option for the Kremlin. Some national party leaders, for example, Novotny in 1967 and Gomulka in 1970, asked for military intervention and were refused. This indicates first priority of the Kremlin leadership is the preservation of pro-Soviet policy and orthodox, Soviet-type socialism in the nation concerned. The fate of local leaders, however reliable, is of distinctly lesser importance. Concerns about security or ideological purity alone do not appear to be considered as a primary motivation for military intervention, For example, if this were so, then Soviet reaction to Yugoslavia's defection or Romania's independent actions should resemble other cases, but it has been consistently different.

Tito's defection from Moscow's ranks undoubtedly did have some effect upon Soviet perceptions of security on their Balkan flank. While annoying to Moscow, it is true that in the light of predictable Yugoslav resistance to Soviet military intervention, the Kremlin concluded that they could live with an independent Yugoslavia and that military intervention was not a worthwhile investment. In the case of Romania, it seems that rigid internal party control, reasonable Warsaw Pact collaboration, a common frontier with the Soviet Union and a continued adequate distance from the West have assured Kremlin leaders enough to tolerate her independent and occasionally aberrant foreign policies.

Poland presents another case: one in which security is clearly more important than ideology. Yugoslavia is on the periphery of the Soviet empire; Poland is entirely within its borders, forming a vital bridge linking East Germany and the Soviet homeland and sharing common borders with Czechoslovakia. Here, even the potentially high cost of Soviet military intervention against traditional forms of Polish resistance would not deter the Kremlin from such a decision if it were determined to be necessary. As long as Polish leadership can assure that Moscow's fundamental objectives (outlined below) are met, Soviet intervention, while possible, remains less likely.

It is possible to conclude that the most useful factors in determining Moscow's decisions are: the degree of control over population and events a local Eastern European national leadership is able to maintain; the degree of close adherence by the local government to the current Soviet Marxist-Leninist line; and, finally, the maintenance of a prescribed distance from the West. In the case of Yugoslavia, and to a lesser degree, Poland, the capability and will of the nation and its leaders to resist Soviet military intervention with force must be considered as well.

Once a military intervention is decided upon in Moscow, it is executed with great force, secrecy and speed.

Once a military intervention is decided upon in Moscow, it is executed with great force, secrecy and speed. Western reactions, while weighed carefully in each case, do not appear to have presented Moscow with insurmountable problems. Moscow has had a political and economic price to pay for military intervention, but seems to have found the cost not unreasonable when compared to its perceptions of the cost of failure to intervene.

During the closing days of Brezhnev's rule, it became increasingly apparent that his departure from the scene would be likely to unleash a new Kremlin power struggle and the struggle would inevitably produce an

unsettling effect upon Eastern Europe as well as in other parts of the world. It is still too early for one who is not inside of the closed circle in the Kremlin to comprehend clearly the nature and scope of the still unresolved consolidation of power by Yuri Andropov, but it is reasonable to judge that not all of the obstacles on the way to supreme power have been cleared from his path. Andropov, today, faces an immense number of domestic and international problems of every kind, all of which make it difficult for any observer to try and predict the most likely course of events in Eastern Europe and, particularly, in Poland.

It has often been remarked that one can find support for almost any point of view in the writings of Marx and Lenin. In his political writings, Lenin frequently referred to Russia under the Czar as "the weakest link in the chain of imperialism and capitalism." In the communist world of today, it is Poland that is "the weakest link," since in that unhappy country, all of the weaknesses and self-contradictions of the communist system are combined together with Soviet imperialism in its penultimate form. A year of martial rule has impressed upon the Polish people the fact that they cannot trust the Polish Army and, at the same time, has clearly demonstrated to them their own limitations. During the same period, the Soviets seem to have recognized that their military intervention into Poland would have led them into an even deeper pit than their adventure in Afghanistan. As Napoleon observed, "A nation can do anything with bayonets except sit on them." Thus, today, the Soviet leaders face a genuine dilemma. The introduction of martial law by General Jaruzelski and his colleagues has not fundamentally changed internal political and economic conditions in Poland nor, on the other hand, neither can the abolition of martial law change them. The most significant single fact about the situation in Poland is found in the inherent inability of the Polish Communist regime to govern the country and solve its problems even when not imminently confronted with a strong and well-organized opposition. This inefficiency is due to the monopoly of power in the Party as well as a forced dependence upon the Soviets and ***the same inefficiency is inherent in every East European regime*** in some degree.

Thus, the current Polish crisis is a more profound one than those examined earlier in our review. The 1956 Hungarian revolt, for example, combined communist youth, small landholders and conservatives, all of whom rebelled against a Stalinist police state in seeking greater independence for their country. In Czechoslovakia, the unrest we saw in 1968 was initiated by intellectuals within the ruling Communist Party who were themselves, the leaders of a reform movement. In today's Poland, however, the movement includes individuals from every level of the social strata and focuses its attention on movement. SOLIDARITY, for example, wanted the principle of self-management to be independent from the party and to be based upon freely elected worker's committees and advocated, as well, that the principle of force elections was to be introduced into the political life of the nation and no longer to remain as a monopoly of the Communist Party. Other political groups as well, according to SOLIDARITY would be permitted to put up independent candidates for public office. This movement was the first in Eastern Europe to raise these basic and fundamental questions about the communist system so clearly and forcefully. Since a pluralistic society is a basic contradiction in terms in a communist society, the Soviets will face this continuing grave and, for them, disturbing condition.

One may conclude the Polish crisis will not abate since the underlying causes are so profound. If the Soviet and Polish leadership expect to find any solutions within the confines of their present political and economic system they are doomed to disappointment and their concerns can only increase when they come fully to realize that the present Polish crisis is only the most visible tip of an iceberg demonstrating the contradictions existing in all of the East European Communist nations, albeit in different forms. The current Polish crisis has great significance throughout East Europe, and elsewhere, since it reflects an overall decline in the communist system. The "Polish disease" appears to be one which Soviet military "surgery" cannot cure.

A serious laborer in the intelligence process who may be pressed to look ahead into the future may gain some useful insights for our review of the past and, in looking into the future, may find some encouragement in the words of Walter Lippman, who said that: "Prophecy is seeing the necessary admidst confusion and insignificance."

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The Intelligence Role in C³ Countermeasures

by Lt. Col. Charles F. Smith

In the mid-1970s, driven by social and economic forces which generated major reductions in funding and forces, the Department of Defense initiated numerous efforts to identify ways in which U.S. technological advantages could be used to offset the numerical advantages, in both major end items of equipment and personnel, of our potential enemies. One way investigated in depth, and strongly recommended by the Defense Science Board was C³ countermeasures. As defined by DOD and the Joint Chiefs of Staff, C³CM is the integrated use of operations security, military deception, jamming, and physical destruction, supported by intelligence, to deny information to, influence, degrade, or destroy adversary C³ capabilities and to protect friendly C³ against such actions. C³CM comprises two subfunctions: counter-C³ (attacking the enemy's C³) and C³-protection (insuring the continuing effectiveness of our own C³). It will come as no surprise to the reader that the purpose of this article is to discuss that seemingly gratuitous tack-on—"supported by intelligence."

C³CM is a warfighting strategy (but not necessarily strategic; in fact, the primary emphasis on C³CM is in tactical applications since that's where the numerical inferiority is most pervasive). Other words which come to mind to describe C³CM are tactics, approach, or philosophy; in some contexts, "strategem" may be appropriate. In any event, the major point is that C³CM is not tied to any specific discipline, slice of the organizational structure, or equipments. Most of all, it is not synonomous with electronic warfare, a widespread misperception one can find in all the commands, services, and defense agencies. EW is one important capability for the execution of a C³CM strategy—but only one of many.

Thus we may say that while there are C³CM strategies, there is no such thing as a C³CM system. There are lethal systems, EW systems, security systems, etc., many of

> . . .C³CM is the integrated use of operations security, military deception, jamming, and physical destruction, support by intelligence . . .

which can be employed in the execution of a C³CM strategy. This is an important point, and not just semantically, for it goes to the heart of getting organized to execute C³CM strategy. If C³CM becomes defined in terms of one system or a set of systems, it inherently stands in danger of losing the aspects of an integrated approach—a potential danger already demonstrated in several commands which have defined C³CM as EW, letting everyone else off the hook for accomplishing it.

If an effective C³CM strategy is to be carried out, its essential elements and priorities will have to be outlined in the commander's concept of operations, and detailed planning and implementation will have to be monitored not by just some one element of the operations staff, but by the head of operations and the command group as a whole. This being the case—if in fact C³CM is for commanders and operators—what then is the role of the intelligence officer? The answer to that question lies on both official and unofficial planes. The latter is, at least at this time, undoubtedly more important than, and a precondition for the former.

Why is that? Well, the unfortunate fact is that C³CM may be a strategy for operators, but very few operators recognize it or are prepared to do much about it. There are essentially three root causes for this situation:

- First, C³CM is a nonstarter if not preplanned, and realistic, thorough war planning is not a high priority on the peacetime agenda of operators faced with the daily vicissitudes of training, exercises, and other similar duties. This syndrome is reinforced by the hoary saw that no one ever executes an OPLAN as written. Regardless of the truth of this assertion, it is a disaster for C³CM, which will be to the enemy little more than harassment and a nuisance if it is not thoroughly planned and coordinated in advance. In fact, it may become more dangerous to friendly C³ than it is to the enemy's (see January 1983 ***Military Review*** for further discussion of planning for C³CM).

- Second, most operators give little thought to the enemy's command and control system. Rather, the operator tends to be concerned with outfighting or outmaneuvering the enemy's fire and maneuver forces. He recognizes that understanding the enemy's C³ is critical to the success of the intelligence officer, but tends therefore to leave concern with the enemy's C³ to intelligence. The idea of an orchestrated, systematic attack on the enemy's command and control system is not exactly widespread.

- Third, most operators tend to equate friendly command and con-

trol with electronic communications, and therefore a combat support matter relegated to the province of the communications-electronics staff. The Soviet concept of radioelectronic combat as a systematic, lethal and electronic, attack on our overall electronic apparatus in the field is not much better known among operators than is the enemy's C^3 system.

The foregoing should bring the unofficial role of the intelligence officer into better focus, to wit: Salesman! C^3CM may be a strategy developed by operators for operators, but two out of the foregoing three reasons why operators aren't doing much about it are in the purview of the intelligence officer to rectify. (And the third, operation planning, is almost inherently dependent upon rectifying the other two.) Thus it falls to the intelligence officer to fulfill much of the operator's role to persuade not only the command group, but also the operator himself, of the value and importance of a well thought-out C^3CM strategy.

To accomplish this salesmanship function, the intelligence officer obviously must be prepared to discuss knowledgeably:

- How the enemy's (or potential enemy's) C^3 is organized, its criticality to the effectiveness of his operations, and its vulnerabilities.
- Enemy (known or estimated) capabilities and intentions to deceive, degrade, destroy, or deny information to our own command and control systems.

This knowledge leads us directly to the official, or classical if one prefers, role of the intelligence officer in C^3CM. Not only must he be thoroughly knowledgeable in order to sell C^3CM to the command group and the operator, but also he will likely have to draft much of the C^3CM input to appropriate OPLANs, at least to begin with, and then will have to crank up the intelligence support which will be the *sine qua non* of an effective C^3CM strategy.

Before delving into the questions the intelligence officer will want to ask himself in his official role, it would be appropriate to step back and ask ourselves why the intelligence officer should gratuitiously insert himself into the operator's world. I submit that there are several reasons. First, C^3CM is a DOD-wide program but, as noted above, intelligence officers are really better qualified to get it started than are those who are nominally responsible. Second, it is an inherent responsibility of the intelligence officer to advise the commander of enemy capabilities and intentions, and to assist in developing strategies to exploit enemy vulnerabilities in order to overcome him in battle. Third, assembling the data necessary for a counter-C^3 strategy is a natural spinoff of everyday intelligence interests, e.g., order of battle, biographics, doctrine and tactics, communications structures, etc.

The intelligence interest in C^3-protection, i.e., intelligence on enemy counter-C^3, is less clear except as applies to Soviet REC. However, it seems apparent that enemy counter-C^3 intentions and supporting capabilities would be of critical interest to any commander. Fourth, and finally, once a C^3CM concept is developed for a specific OPLAN, the production of supporting intelligence makes an excellent peacetime utilization project for tactical intelligence personnel.

Both national and deployed tactical intelligence systems collect constantly against foreign C^3 systems; hence, there would be no dearth of data, but compiling, organizing, analyzing, and disseminating it in a meaningful way would be an impressive task. Even more difficult would be a production effort on foreign counter-C^3 since, with the exception of Soviet REC, there is little collection or data compilation in this area, a fact which should serve only to highlight the importance of getting on with it.

While specific intelligence needs will inherently be governed by the C^3CM strategy developed in a particular OPLAN, it is possible to postulate some generic requirements to guide intelligence planning, both for peacetime and upon execution of the OPLAN. Although certainly not all-inclusive, some representatives thoughts are:

In peacetime, in support of counter-C^3:

- ☐ How does the enemy structure his C^3 to support his organization for combat?
- ☐ How does the enemy establish and lay out his command posts? How are they tied to his communications and information-gathering sensor systems?
- ☐ How does the enemy typically deploy and control his sensor systems?
- ☐ How are the enemy's communications centers/terminals organized and placed? What are their vulnerabilities to lethal and nonlethal attack?
- ☐ Do we hold the necessary technical data on the enemy's communications-electronics systems to allow us to exploit them (actively or passively)?
- ☐ How do weather and terrain affect the enemy's C^3 organization and capabilities?
- ☐ Is the enemy vulnerable to deception? In what forms?
- ☐ What forms of deception and/or security does the enemy practice for the protection of his C^3 structure?
- ☐ What are the enemy's capabilities to lethally attack our ECM emitters?
- ☐ Who are the enemy's key decisionmakers? Do they exhibit any vulnerabilities or predilections?

In peacetime, in support of C³-protection:

- ☐ What, if any, is the enemy's doctrine for attacking an opponent's C³, both lethally and non-lethally?
- ☐ How does the enemy train and exercise for attacking an opponent's C³?
- ☐ What capabilities does the enemy possess for attacking an opponent's C³, specifically:
  - Attacks by fire support or maneuver forces?
  - Deception, both active and passive?
  - Jamming?
  - Security of forces?
- ☐ What is the enemy's information-gathering capability to support attack on an opponent's C³? How effective/accurate is it? Is it vulnerable to:
  - Lethal attack?
  - Deception?
  - Jamming?

  } If so, in what form?

Let me reemphasize that the foregoing lists of questions for the intelligence officer are neither all-inclusive nor totally definitive. Too much depends on the nature and concept of the operation, as well as on the characteristics of the particular enemy to be engaged, to be more specific in this type article. That is why it is so critical that each OPLAN (as appropriate) contain concepts for both counter-C³ and C³-protection. For it should be apparent from the scope and depth of the questions involved that they can only be answered in peacetime. Waiting until the war starts to answer them is a nonstarter which will yield harassment and nuisance to the enemy at best, and self-inflicted fratricide within our own C³ at worst.

Assuming that we will accomplish the prehostilities production needed to support a given OPLAN's C³CM strategy, we can turn to our requirements for current (or tactical, if one prefers) intelligence upon execution of the OPLAN. Once again we find that specifics are dependent upon the particular enemy and area of operations involved; however, we can postulate generic requirements much like EEI/OIR, albeit we must leave the details of indicators and reporting requirements to the collection plan supporting a specific OPLAN. In general, as in most intelligence, what we will be looking for is timely data for the identification of changes and anomalies in information already in our data base. Some representative, but by no means all-inclusive, thoughts:

- ☐ How is the enemy collecting his maneuver and fire support forces?
- ☐ Where are the enemy's command posts? How are they organized and protected?
- ☐ How and where is the enemy deploying his information-gathering sensor systems?
- ☐ What changes have occurred in the key enemy decision-makers?
- ☐ Where are the exploitable gaps in the enemy's security posture?
- ☐ What are the enemy's jamming capabilities? How are they deployed and controlled?
- ☐ What are the enemy's lethal anti-jam capabilities?
- ☐ What are the enemy's deception capabilities?

One could go on and on *ad infinitum*, becoming more and more definitive; however, the requirements are patently going to be heavily scenario-dependent and therefore there is little point in trying to develop much detail in an essay of this type. The major point is that the intelligence officer, in connection with any given planned operation (and only a carefully preplanned operation will be effective in C³CM), needs to give serious thought to these types of questions, both preparatory and execution.

By this point most intelligence officers will be asking themselves: "So what? Haven't we always done that? Attacked command posts? Jammed communications? Attempted to deceive the enemy? Maintained security? So what else is new?"

The answer, obviously is "Of course we have." Since ancient times, military scholars have written of the imperatives of security and deception. The capture or killing of couriers, which we might characterize as an ultimate form of jamming, goes back beyond Biblical times. Going for the king's chariot, the general's standard, or the admiral's flagship is at least as old.

The difference is that we have never gone about it in a broadly coordinated, cohesive way. There are classic cases where deception has turned the tide of battle, tactically and strategically. Certainly security and its concomitant, surprise, have been critical to many battlefield successes. Electronic warfare and related intelligence activities, despite their close-hold nature, have clearly been vital components of warfighting since World War I. And history is replete with examples of battles lost due to being outwitted or outmaneuvered, or to the loss or capture of key command elements, even when not outnumbered. But for the most part, the examples from history occurred in near-vacuums.

In summary, what we have is a Defense-wide program with high visibility at high levels, a program ordained as being within the fiefdom of operations, but which the operators cannot even begin to approach without intelligence support. In fact, they may not even try. Thus we have a reversal of the classical operations-intelligence relationship (admittedly by no means a unique reversal, however) in which intelli-

gence must lead rather than responding to the requirements of operations. Without such a lead, operations will not know what it wants or needs to do, and hence will have extreme difficulty formulating the right questions. If C³CM is in fact essentially a planning exercise—as I would contend it inherently is—then it may even be necessary for the intelligence officer to create a C³CM concept of operations for the operations officer to approve. At least until the operations officer gets the hang of it.

A well-planned, thoroughly coordinated attack on a numerically superior enemy's C³ system, coupled with a carefully worked out scheme for the protection of our own C³, can go a long way toward degrading that numerical advantage. The intelligence officer plays a vital supporting, and perhaps leading, role in this effort.

As professional intelligence officers it is incumbent upon us to insure that commanders and operators at all levels understand the nature of C³CM, what it can do for the command mission, and how best to accomplish it.

Lt. Col. Charles F. Smith, has a master's degree from Boston University and a bachelor's degree from Ohio State University. He is also a graduate of the Infantry and Army Security Agency basic courses, the Intelligence Advanced Course, and CGSC, and is enrolled in the Army War College Corresponding Studies Course. Previous assignments include duty with ASA, Fort Devens, Mass., Berlin, Vietnam, Washington, Korea and Hawaii. He is currently assigned as an action officer with the Operations Directorate, for the Joint Chiefs of Staff.

Research and Development

Drone Flight

The Lockheed Aquila remotely piloted vehicle zips skyward in the early daylight after launch from its truck-mounted catapult rail, above, at Fort Huachuca, Ariz. After a successful flight, the Aquila flies into the vertical ribbon barrier of the retrieval system, right. The Aquila has been undergoing tests for the Army as a forward reconnaissance and target designation vehicle. The pilotless aircraft is seen by planners as playing an important role in the future.

The Aquila carries a television camera and night-vision device. It is designed to penetrate the forward line of troops to find targets, provide information for the adjustment of artillery fire, and use a laser to mark targets for incoming fire. (Reprinted from Soldiers)

More AN/TRQ-32 (VI) systems purchased

The U.S. Army Electronics Research and Development Command's Signals Warfare Laboratory will reportedly purchase 32 additional AN/TRQ-32 (VI) radio receiving set systems at a cost of $11.2 million. The purchase was made under terms of a contract awarded to Magnavox Government and Industrial Electronics Co. in June 1982, calling for the initial delivery of 20 shelter-mounted radio receivers.

The AN/TRQ-32 set is a mobile, multi-station, ground-based direction finding and intercept system that supports the Army in the tactical environment. An improved version that Magnavox will produce is equipped with a pneumatically operated, quick-erect antenna mast. (ERADCOM PAO release)

HMMWV contract awarded

AM General has been awarded a five-year, $1.2 billion contract to produce nearly 55,000 High Mobility Multipurpose Wheeled Vehicles for the Army, Marine Corps and Air Force. The "Humvee," or "Hummer" as AM General calls it, will ultimately replace some jeeps, M880 pick-ups, M561 Gama Goats, M274 Mules and M792 tactical ambulances. 2,334 Humvees are expected to be delivered to field units by December 1984. In a very keen competition, AM General beat out entries from General Dynamics Military Vehicles Division (formerly Chrysler Defense) and Teledyne Continental Motors.

'Microquick' lab searching for customers

A chip off the Army's new "Microquick" foundry might be able to solve any well-defined technology insertion problem.

"We are available to supply custom integrated chips to any Department of Defense laboratory," said Charles D. Bosco. "But our biggest need is locating customers."

Bosco is a research physical scientist in the Microelectronics and Displays Division of the Electronics Technology and Devices Laboratory. Located at Fort Monmouth, N.J., this lab is one of seven laboratories reporting to the U.S. Army Electronics Research and Development Command.

The ETDL division is anxious to acquire customers for "Microquick," in the words of team leader Randy Reitmeyer, "to enable laboratory personnel to demonstrate new concepts and parts replacement in the form of prototypes."

"Microquick" has the capability to provide computer aided designs for well-defined problems, to fabricate integrated circuits, to prepare mask pattern generation, to package and test the chip and to develop small prototype brassboards.

Unlike large commercial firms, "Microquick" can produce small quantities of custom chips at a relatively low cost in three to six months. Reitmeyer points out, "We can have chips designed and built much faster than through an outside contract. Plus, when the prototype is built, a complete computer aided design documentation package exists for creating contract specifications for fielded hardware."

The short turnaround time is made possible by the CAD system and by the fact that packaged integrated circuits can be made from stockpiled gate arrays.

"Microquick" uses silicon-on-sapphire/metal oxide semiconductor (SOS/MOS) technology which is particularly well suited to high-speed processing and low standby power requirements. At present, it can produce chips of 800-gate (or logic function) complexity. But according to ETDL electronic engineer George A. Hrivnak, a 2,700-gate complexity will be available by next fall.

The ideal customer, say "Microquick" specialists, is looking to demonstrate the feasibility of an idea, to miniaturize hardware, or to replace obsolete equipment. If the problem is well-defined, "Microquick" can provide detailed logic design. "Microquick" engineers can also help translate word statement problems into definite requirements.

User design documentation and informal training sessions are available to orient persons or groups in participating in chip development projects.

"Microquick" is already off and running, having satisfied requirements of the Electronic Warfare Laboratory, which also belongs to ERADCOM. A single chip custom programmable pulse generator was developed, processed, packaged and tested for the EWL.

Known as "Simpulse," the chip took six months to develop—including detailed logic design, simulation, test generation, topological layout, fabrication, packaging and testing. In addition, "Simpulse" was integrated into a prototype "microsystem" that included the "Simpulse" gate-array chip, a single-chip microcomputer, a 4 x 4 matrix keyboard and an eight-digit light emitting diode display. EWL plans to use the chip to simulate a battlefield electronic warfare pulse environment.

For additional information on "Microquick," contact team leader Reitmeyer at the Electronics Technology and Devices Laboratory, ATTN: DELET-I, Fort Monmouth, N.J. 07703, or telephone AUTOVON 995-4018 or commercial (201) 544-4018. (ERADCOM PAO release)

Satellite schooling

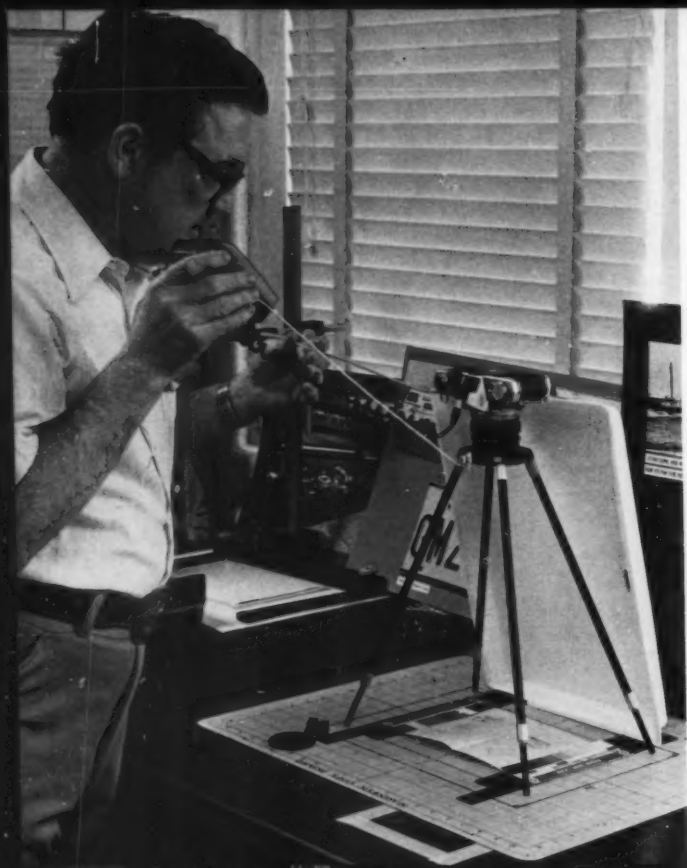
Under a test program pioneered by the Army Training Support Center, soldiers are attending classes by satellite.

The experimental program, which began on March 29, is called the "Army School of the Air." The first of the 12-hour instruction was given in six cities nationwide to update instructors teaching Command and General Staff College courses to Reserve Component officers.

Lt. Col. James G. Shepherd, the project director at ATSC, feels that the experiment could revolutionize Army training. Said Shepherd, "The 'Army School of the Air' could save money and manpower and still meet the needs of a well-trained Army. This initiative contributes to excellence in Army training which could pay off later on the battlefield."

The course is presented live, allowing students and instructors to interact via audio hookups. For this project, the Army is using the Bell microwave system to transmit the classes from Fort Leavenworth, Kan., to a television station in Kansas City which has a satellite transmitter. The Army is renting the station's facilities to beam the programs to a West Star II satellite. Rental fees are much lower than the costs of moving a soldier's family to the location of the school, thus saving government funds and the turbulence of relocating the family.

Shepherd explains that this is just the beginning of an Army satellite network. ATSC will conduct another experiment at the Quartermaster School, Fort Lee, Va., later this year. The program will consist of 20 hours of instruction, and will incorporate lessons learned through the Fort Leavenworth experiment into an entirely different network. (TRADOC News Service)



Making color comparison tests of various passport stamps.

Technician performing experimental analysis on unique U.S. designed lock.

Optical comparascope used to determine why a combination lock failed.

IMDSO

Intelligence Materiel Development and Support Office

Do you know its mission?

by Maj. John L. Cook

The U.S. Army Intelligence Materiel Development and Support Office, located at Fort George C. Meade, Md., is unique by any standards. It is a mixture of military and civilian professionals, some fifty in all, representing a variety of skills and talents, all related to the intelligence world. As military organizations go, IMDSO has a long and colorful history. Its origin can be traced to April 1, 1943, when the Counterintelligence Corps Supply Depot was established at Camp Holabird to give logistics support to the Army by providing non-standard, specialized intelligence devices during World War II. On June 2, 1947, the Counterintelligence Corps Center was created, also at Camp Holabird, to develop specialized intelligence materiel. Over the years, these two organizations went through several reorganizations and name changes, but their missions remained the same—one handled the logistics side of specialized, non-standard intelligence devices, and the other was responsible for development and fabrication of these devices. Finally, on July 1, 1974, they were merged into a single organization and IMDSO, as it exists today, was born.

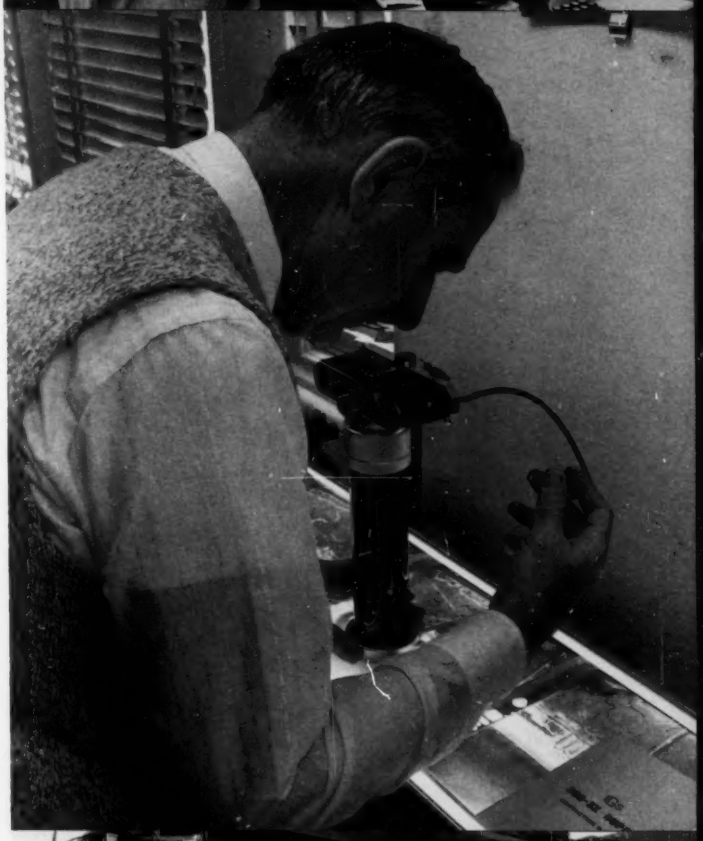
IMDSO's mission is as unique as the organization. Although closely aligned with the U.S. Army Intelligence and Security Command, IMDSO belongs to the Army's developer—the U.S. Army Development and Materiel Readiness Command. To be specific, the Electronic

Warfare Laboratory, located at Fort Monmouth, N.J., one of seven laboratories that make up the U.S. Army's Electronics Research and Development Command, owns IMDSO. However, as a result of General Order Number 76, which created IMDSO, the Assistant Chief of Staff for Intelligence has a direct line of communication to this organization. Officially, IMDSO is responsible for the "development, test, evaluation, modification, fabrication, and procurement of specialized, non-standard intelligence materiel, and the development of related processes and techniques; the provisioning of technical equipment and logistical support to the U.S. Army intelligence activities and other DOD agencies; and the quick reaction response to requirements of intelligence units for specialized intelligence materiel and techniques. Technical areas involved are electronics, photo-optics, and security systems for intelligence application. Additionally, IMDSO maintains direct contact with U.S. Army intelligence and government activities." By design, this is a broad mission as it allows IMDSO to support intelligence units across a wide spectrum. As a result, IMDSO's role in the modern world of military intelligence is more critical today than ever before. The reasons for this are many.

First of all, IMDSO bridges the gap between what the Army's research and development centers will eventually field and what industry has available now. If, for example, an MI commander has a requirement today for a non-standard item of intelligence equipment, he would be in trouble if there was no organization such as IMDSO. The R&D community would be of little assistance if he needed it quickly and industry would not be interested in building a single device. Solving problems of this nature is a specialty of IMDSO. Thus, "non-standard" and "quick reaction" are two of the key characteristics of this organization.

Secondly, efficient logistics capabilities must exist to ensure the required items reach the customer when he needs it, anywhere in the world. It does no good to quickly modify or fabricate an item if the ultimate user must wait for it to be

Repairing specialized electronic equipment is one of the key missions of the maintenance branch.



Testing the 3-power DUPER—a device used to enhance selected areas of aerial photography.

Writing a computer program to control automatically a spectrum analyzer.

delivered through normal logistics channels. Fortunately, IMDSO has an extremely responsive logistics system capable of meeting the users' needs, while maintaining strict accountability for thousands of items worldwide, through its national inventory control point. The inventory flows constantly. An item not needed by one unit may be needed by another. A recently installed computer system keeps careful watch over who has what.

Finally, and perhaps the most important, are the very special people that make this whole complex, dynamic, and exciting organization function day in and day out, year after year. Any organization, regardless of size or mission, is only as good as its people. IMDSO is blessed with many seasoned veterans in various intelligence disciplines. Rush jobs cause no panic; tough jobs are considered challenging; nothing is considered impossible. This attitude, coupled with first-rate performance, has earned IMDSO an enviable reputation as a hard-working, high-quality organization that delivers.

One of the most valuable services IMDSO performs is in the area of locks and security equipment. As an independent tester and evaluator for the Department of Defense, IMDSO insures that the new high, medium, and low security padlocks meet government specifications. Unless the lock being tested passes a very grueling obstacle course, it will not be added to the inventory. However, IMDSO's interest in locks goes much further than simply defeating them. It extends to assisting and advising the user on the best security system for his particular needs. The level of expertise in security systems that resides here make this organization uniquely qualified to advise and assist clients anywhere in the world. Not all customers are military. Other government agencies routinely solicit advice on matters concerning security. The Internal Revenue Service, for example, wants assurance that the new filing cabinets they are about to purchase will provide the security they need. Another agency may need an evaluation of a microfiche shredder. Or the Armed Forces Exchange Service needs to know if the cargo doors of container-carrying trucks have been tampered with. All of these requests for assistance are considered perfectly normal and even routine by IMDSO's work force.

In the areas of electronics and photo-optics, IMDSO routinely tests and evaluates new items for intelligence application. Modifications are made based on the user's need. Quite often, evaluations are performed in anticipation of a need. These in-house projects have proven to be extremely valuable. One example is the tremendous advancements IMDSO has made in the area of high resolution photography. Such undertakings demand that IMDSO stay abreast of emerging technology that can be translated into better support to the operational units.

In the final analysis, IMDSO exists to support the needs of intelligence units worldwide. The goal is to accomplish this with as little delay and bureaucracy as possible, while tailoring the support to fit the mission. This isn't always easy, but if it was, any organization could do it.

Any questions or inquiries should be sent to: Chief, IMDSO, ATTN: DELEV-I, Fort Meade, Md. 20755. AUTOVON 923-5958, commercial (301) 677-5958.

Maj. John L. Cook, is the chief of IMDSO. His intelligence specialities are 35, 36, and 37.

Continued from page 3

Feedback

to Kaiserslautern following the Peace Treaty and assumed responsibility for Rheinland-Pfalz (formerly a part of the French Occupational Zone). The five regions were subsequently re-designated Field Stations (with the same numbers) until July 1962 when they became, respectively, the 6th, 165th, 503rd, 511th and 527th MI Companies. Later transfer of the 6th MI Company to Fort Meade, Md., and inactivation of the 503rd MI Company left the three that today carry "battalion" designations. Another present group unit which historically descends from the old region structure is the 766th MI Detachment. In the early 1950s, Region IX (Bremen) relocated to Orleans, France, and assumed support for Headquarters USAREUR COM-Z. Its former AOR was absorbed by Region X (Bad Wildungen). Region IX was later redesignated the 766th CIC (later MI) Detachment and returned to Germany when USAREUR COM-Z was disestablished in 1966.

The many reorganizations, administrative designations and changes of operational control (and missions) of the 66th MI Group have been far too numerous for any brief history, but they have resulted from, or in, many lessons learned (and sometimes re-learned) over the long years. A full operational history would fill a very large book that would be very instructional for those in the HUMINT field.

I appreciate the article and would like to see future articles on the other groups and battalions, including illustrations of their insignia.

Conrad R. McCormick
Security Division
Headquarters, Fort Huachuca, Ariz.

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The Lieutenant for all sources

A change in Military Intelligence Training

2nd Lt. Jones has just graduated from the 36A course. Through long, diligent nights of typing interviews and case reports he has ended up at the top of his class. He is motivated! He is excited! He cannot wait to get to Fort Swampy and do some "real" CI work. (Jones does not know this yet, but Fort Swampy has just lost an officer in the 1st Battalion's S2 section. The next MI officer to sign-in will wind up as that officer's replacement.) Jones is about to enter the MI "Twilight Zone."

Does the above sound familiar? It should. 2nd Lt. Jones is about to face a situation encountered by many MI lieutenants today. However, a situation such as this will not occur in the future. As a result of comments provided by many officers who faced Jones' situation, along with other extensive input from the field, the entire strategy of MI officer training and usage is changing.

In 1977, the Chief of Staff of the Army initiated an Army-wide program to determine the quality of officer training. As a result of this Department of the Army Review of Education and Training for Officers effort, the way was paved for the commander of the United States Army Intelligence Center and School to affect significant changes in the way MI officers are trained in the future. The Commander, USAICS, in his role as the proponent for MI used the RETO process to assess the problems inherent within MI officer training.

Under the RETO process, two comprehensive surveys were fielded in 1981 and 1982. The first went to specialty code 35 and SC 36 officers, their supervisors and chains of command. The second did the same for SC 37 officers. Extensive analysis of survey results, coupled with a major look at MI organizations and operations and the dictates of Air-Land Battle 2000 doctrine, produced the following results:

□ **All MI officers must be thoroughly grounded in common Army skills.** The MI officer must be trained well enough to walk into any Army unit in the world and pull his weight.

□ **All MI officers must be well versed in all-source intelligence.** As in Jones' situation, the personnel system could not guarantee an assignment that matched previous training. There was a clear need for an MI lieutenant adequately trained to perform in any of the various positions in which lieutenants could reasonably expect to serve. The tactical field commanders clearly looked to their resident MI officer as an expert on all facets of MI. The MI lieutenant should be able to clearly articulate intelligence requirements, be able to task appropriate systems, and understand the entire spectrum of intelligence assets available to the tactical commander. Under our present system, officers are "stovepiped" into individual specialties early in their careers and suffer from speciality myopia.

□ **Teaching specialty courses at the lieutenant level gives MI a poor return on its training dollar investment.** Because many lieutenants do not receive initial assignments in their specialty, much of the training received at this level is overkill. Those that are fortunate enough to receive an assignment within their specialty find that some of their acquired skills were not used until they were captains. By that time knowledge decay has eroded much of their initial training. Thus, for training to be cost effective, the right training must be given at the right time.

□ **MI lieutenants must be capable of leading any MI platoon in any MI battalion.** The dictates of the Combat Electronic Warfare Intelligence concept now require a second lieutenant who can lead any platoon within the battalion—from a ground surveillance radar platoon to a collection and jamming platoon. The bottom line—*the days of specialty training for lieutenants are over!*

The Old Strategy vs The New Strategy

Under the current training strategy (see chart 1), all MI lieutenants arrive at USAICS and attend a common officer basic course which stresses common Army skills. Upon completion of

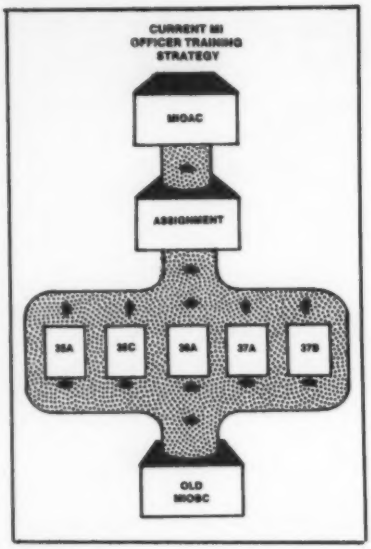


Chart 1

OBC, they attend one of five specialty track courses. Then they go to the field for an assignment, which may or may not be in that specialty. Most return to the school as senior first lieutenants or captains to attend the Military Intelligence Officer Advanced Course. Attendance at the MIOAC is the first time these officers become exposed to all-source intelligence.

A new training strategy, developed to satisfy the requirements surfaced through the RETO process, will now emphasize leadership and all-source intelligence training at the lieutenant level. There will no longer be an OBC followed by different track courses. Instead, there will be a single MIOBC resulting in graduates qualified in specialty skill identifier 35A. However, this will be a new, more broadly defined 35A which covers the entire spectrum of intelligence and accents applications as tactical all-source intelligence officers and MI platoon leaders. SSI 35A will read *Tactical All-Source Intelligence Officer.*

As a result of this revision in training, all MI lieutenants will be accessed into SC 35 and will be awarded SSI 35A upon completion of the MIBOC (see chart 2). Insofar as practicable, the lieutenant will be assigned initially to a tactical-level organization. The proponent has requested that all MI lieutenant positions be recorded to reflect SSI 35A.

The possibility exists—and has not been overlooked—that some lieutenants may be required to fill 0-3 positions in other than their assession 35A speciality during their first tour. For these exceptions, training will be available on a TDY from unit basis. The change in training strategy will now allow the MI second lieutenant to hit the ground running in any tactical assignments. He will also be able to lead any MI platoon in any MI battalion. In essence, whatever else the MI officer will be, he will be a combat intelligence officer! As an added bonus, the graduate of the new MIOBC also will be qualified as 5M, electronic warfare staff officer.

The revised MIOBC, scheduled to begin in October 1983, will be 24 weeks in length. The course is divided into two distinct modules; a common skill module (chart 3) is a restructure of the old OBC with more emphasis on platoon leader skills such as leadership, ethics and small unit tactics. It incorporates a five day, high intensity field training exercise. The TASIO module (chart 4) integrates instruction in all the separate disciplines to produce the all-source intelligence lieutenant. Traditional 35A skills such as intelligence preparation of the battlefield, recording analysis and reporting are now augmented by in-depth instruction in operations security, electronic warfare and tactical surveillance operations. Automated data processing has been added with hands-on training in applications to intelligence systems. There is more CEWI operations and equipment training and the battalion training management system has been added. Additionally, the TASIO module will be conducted at a higher level of classification than the previous course.

This revised strategy for MI lieutenant accessions and training has many advantages. It will permit effective utilization of MI second lieutenants throughout the force structure by providing sufficient entry level training so that MI lieutenants may be cross-assigned anywhere. This system will also provide the integration and common frame of reference that the MI branch needs for effective intrabranch communications. Additionally, the

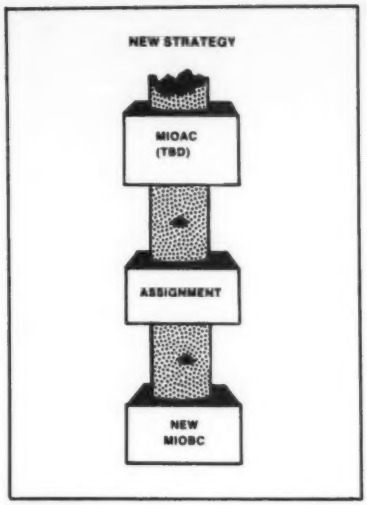


Chart 2

restructure in training strategy will provide a solid basis for more effective development of future G2s and MI battalion commanders and produce the type of MI officer demanded by AirLand Battle doctrine.

The RETO effort is now continuing by assessing the impact of the new lieutenant training strategy on advanced education and training requirements for MI officers. Several training requirements have already been identified.

- ***Maintain an MI officer advanced course.*** Under the RETO process, advanced requirements for training in both common Army and common intelligence skills have been identified. These requirements, involve a restructuring of the present MIOAC as it will no longer be the introduction to all-source intelligence.
- ***Train more captains in non-35A specialties.*** MI branch will no longer have a feeder population from lieutenants to fill requirements within the non-35A SSIs. The requirement now exists to train at the captain level those skills needed to fill billets within the other specialty areas.
- ***Train non-MI officers entering MI as an additional specialty.*** Presently, the requirement exists to train the non-MI officer who is designated an MI additional specialty under the

Common Skill Module

Fort Huachuca, Arizona

Prepared by the United States Army Intelligence Center and School
Expected Travel Time: 9 weeks.

Warning to Journeymen: This trip is paid for by the management. No failures accepted. Food, lodging and facilities will be provided as needed. Your time is ours, our time is yours, maybe. All stops are planned and motivated by the management. Have a top of the class tour.

Legend:

- Stops for classes
- Time between classes
- Road one-way—forward

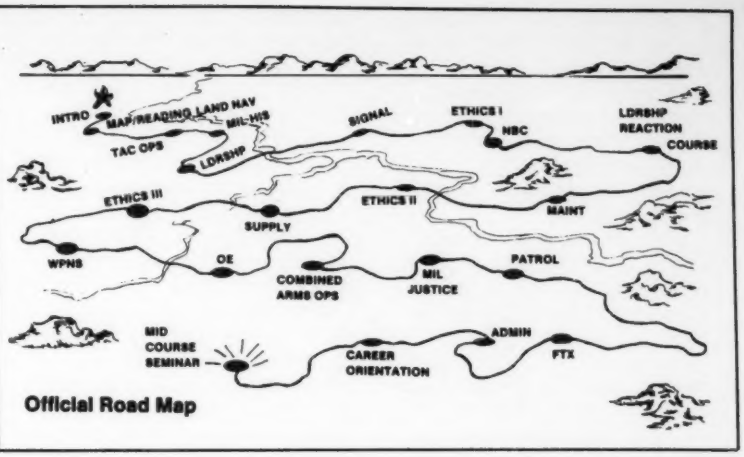


Chart 3

Officer Personnel Management System. This requirement will continue into the foreseeable future.

To address these requirements USAICS is in the process of developing an advanced training and education strategy. Preliminary work has resulted in the development of an outline concept—Concept 2000. As envisioned, Concept 2000 is a system for MI branch officer advanced education and training which will produce MI officers who are fully competent, both tactically and technically, to support the Army in its execution of AirLand Battle 2000.

Concept 2000 may well represent another drastic change in training for MI officers. Under the concept, USAICS is considering plans for three separate training programs:

CONCEPT 2000

A System for MI Branch Officer Advanced Education and Training which will provide MI Officers who are fully competent, both tactically and technically, to support the Army in its excution of AirLand Battle 2000.

□ ***A resident MIOAC.*** Although the design for a restructured MIOAC is only in the analysis phase under the RETO process, it is envisioned that all MI officers will return to USAICS after four to six years of field experience to attend an MIOAC. The officer may serve one long and one short tour or even two long tours prior to attendance. As a result, the MIOAC will become exclusively a captain's course—truly an "advanced" advanced course where the student officer will have a wide variety of experiences to draw upon and contribute to the class. Tentatively, the MIOAC is expected to remain at its current length of 26 weeks. However, the structure of the course will be significantly modified. The MIOAC will become a multi-dimensional training program designed to prepare MI officers for those positions they could reasonably be expected to fill between their fourth year of commissioned service and attendance at the Command and General Staff College. The MIOAC is envisioned as encompassing three training phases:

- An Army common core which will accent those skills required for all Army officers.
- An advanced MI topics

Tactical All-Source Module

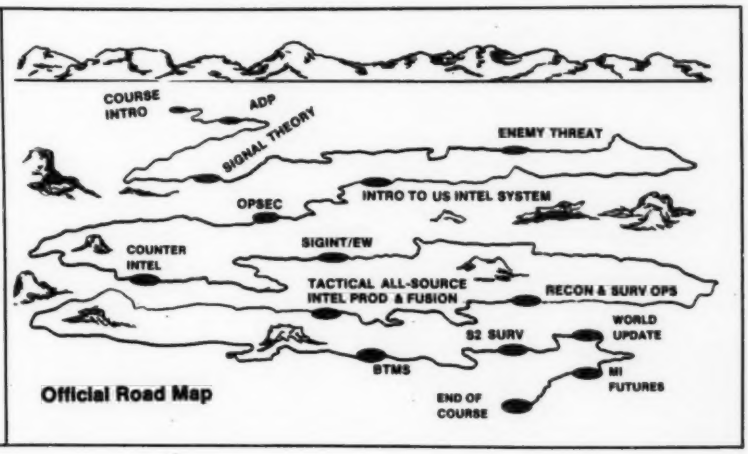
Fort Huachuca, Arizona

Prepared by the United States Army Intelligence Center and School
Expected Travel Time: 9 weeks.

Warning to Journeymen: This trip is paid for by the management. No failures accepted. Food, lodging and facilities will be provided as needed. Your time is ours, our time is yours, maybe. All stops are planned and motivated by the management. Have a top of the class tour.

Legend:

- Stops for classes
- Time between classes
- Road one-way—forward



module which will include the common MI tasks identified by the RETO process. It will include more in-depth instruction on national system capabilities and products and emphasize those skills needed to command MI company level organizations.

- Advanced specialty topics which will be designed in a modular format and will offer the student "menus" of courses which will lead to initial qualification within a specialty area. These menus, one for each specialty, will include "core" modules—those which are necessary for qualification—and a selection of professional development modules which the officer should elect to take based on additional requirements within the specialty or based on follow-on assignment. The officer could also elect to take a module outside his own specialty area, time and schedule permitting. Several modules may be taught outside of USAICS at other Department of Defense or U.S. Government agencies with students attending in a TDY status.

The design of the MIOAC will need to be based on, and provide a logical follow-on to the new MIOBC. Thus, introductory training in all-source intelligence will not be included. However, it is recognized that for a few years officers attending MIOAC will not have had the advantage of attending the new MIOBC. To orient these officers to all-source intelligence and all its applications, a necessity exists for development of an all-source intelligence orientation module. The officers would take this module prior to starting the MIOAC. This requirement should disappear as all MI officers receive the benefit of the new MIOBC. However, it will remain for the non-MI officer receiving an additional specialty in MI.

□ ***Opportunities for graduate studies.*** A few select officers would be chosen to attend graduate programs to qualify them for assignments which require advanced degrees. Efforts have been initiated to establish an Army MI-related program at the Naval Postgraduate School. Programs including such areas as electronic warfare systems technology and computer science are envisioned as being designed to emphasize Army intelligence applications. It is anticipated that some MI officers will continue to participate in the Postgraduate Intelligence Program and in the Masters of Science in Strategic Intelligence program at the Defense Intelligence College.

□ ***Training with private industry or government agencies.*** A design for private industry or government agency internship is underway to provide MI officers an opportunity to work with a firm, industry, or agency developing specific systems or technologies. Officers who are selected for such a program would have to possess appropriate technical education or experience to qualify for selection.

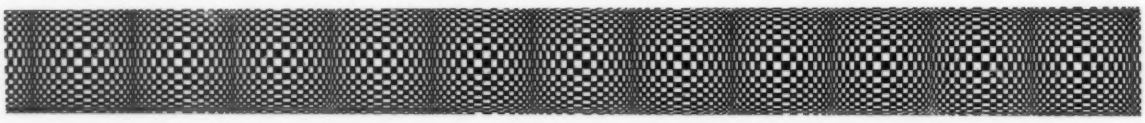
Specific graduate programs and the private industry and government agency program would be designed to provide MI officers who are more attuned to the management and research and developmental aspects of emerging MI systems and programs. This would allow USAICS to train MI officers in the hard skills required to maintain the branch in a high technology environment.

Concept 2000 is just that, *concept.* USAICS is working toward refining the concept along with the restructuring of the MIOAC. Implementation of specific graduate or industry training programs may take a few years, however, the new MIOAC is scheduled to start in September 1984. During this time the concept will be discussed and debated further, thus allowing for a better product.

The current training strategy for MI officers does not adequately meet field requirements. The new training strategy will greatly enhance the performance of military intelligence in the field. It will also fully meet the demands of tactical commanders at all levels in support of the Airland Battle.

2nd Lt. Smith has just graduated from the new MIBOC. Through long nights of study and five days of rigorous field training, he has ended up at the top of his class. He is motivated! He is excited! Although he does not know his specific job at Fort Swampy, he is confident that he will be able to tackle anything given him and that he will perform well as a lieutenant of MI.

This article represents a compilation of several briefings on officer training prepared by the Officer Training Division, Directorate of Training Developments, USAICS. Any questions or comments you may have regarding this article may be addressed to Commander, United States Army Intelligence Center and School, ATTN: ATSI-TD-OTR, Fort Huachuca, Ariz., 85613.



Australian Military Intelligence

by Capt. Brice T. Pacey

The Australian Army has a unique responsibility for it defends a land of paradox. With a population of 15 million people, Australia is one of the most sparsely populated continents, and is the only continent occupied by one nation. It has an area of three million square miles and is the sixth largest country after the Soviet Union, Canada, China, the United States and Brazil. Covering 30 parallels of latitude (equivalent to the range between Oregon and Costa Rica), much of the land is a vast wilderness and varies between humid rain forest and deserts of red sand and stone.

Australia is an island continent with a coastline of more than 22,000 miles. It is separated from its major trading partners and allies by long sea and air routes. Sydney, the largest city, is more than 7,000 miles from Los Angeles and nearly 5,000 miles from Tokyo.

The problems that face defense planners are as immense as the continent itself. The traditional approach to Australian defense has been to structure the Defense Forces to form part of an allied force in which the predominant partner is either the United Kingdom or the United States. Australians have fought beside Americans in many theaters, including both World Wars, Korea and Vietnam.

Current policy places emphasis on the defense of Australia and its interests, and the army has been reshaped to engage principally in limited conventional warfare. The Australian Regular Army represents a core force of 33,000 men and women supported by a similar number of reserves at a lower level of readiness. It is designed for expansion as circumstances dictate while being able to meet a range of short term, lower level contingencies such as guerrilla activity, including military raids or harassment, and aid to civil authorities. The possibility of assisting neighbors in the Australian region or contributing to operations of a contingency or peace-keeping nature in areas remote from Australia is not excluded.

Although relatively modest in size, the Australian Army is structured to gain maximum effect from its resources. It is equipped with some of the most modern equipment available including the Leopard 1 A3 Main Battle Tank, the M198 155mm Medium Gun, and the Rapier Low-Level Air Defense System. Significant new items being brought into service include Unimog four-ton and Mack eight-ton vehicles, the British 105mm Field Gun, and the Milan Anti-Tank Guided Weapon.

The need to train in a wide range of operational techniques has resulted in the brigades of the Regular Army being allocated specialized roles to foster in addition to their standard infantry tactics. This ensures flexibility in that each brigade maintains a core of experience for building a standard infantry, airborne, mechanized or armored division.

The role of intelligence in ensuring the efficient and effective employment of these scarce resources is vital. Low-level raids, harassment or terrorism directed against Australia would have to be met by effective initial surveillance and reconnaissance operations followed by quick deployment of operationally ready forces.

This represents a significant challenge to the Intelligence Corps, whose total strength is 110 commissioned officers and 150 soldiers of other ranks. The Corps has a long history of innovation however, and it has the distinction of being the senior Intelligence Corps in the British Commonwealth.

The Australian Intelligence Corps was established when the Governor General approved Military Order Number 305 of 1907. A further Military Order in 1908 determined the scope of operations for the Corps including the following activities:

a. training officers and other ranks in intelligence work for both peace and war, and supplying officers for intelligence purposes at maneuvers and in war;

b. collecting information about the topography of the Commonwealth and its Dependencies, and their military resources in personnel, materiel and means of communication;

c. collecting like information about foreign countries especially those in the Pacific;

d. preparing strategic and tactical maps and plans; and

e. compiling and recording all information ready for immediate use.

During World War I, the Corps was represented in all campaigns of the Australian Imperial Forces. Intelligence sections carried out reconnaissance patrols, investigations, censored mail, reproduced maps, conducted psychological warfare and translated documents. Between the two World Wars, the Corps as such almost ceased to exist, and survived only through the enthusiasm of individual officers.

During World War II, members of the Corps were employed in a wide variety of staff and regimental appointments. Today's close working relationship with the United States started with combined American-Australian organizations and headquarters during this conflict. Activities included interrogation, translation, field security, photographic interpretation, technical intelligence, liaison, and combat intelligence. During the Korean War, individuals filled a wide variety of staff appointments, while a detachment of the 1st Division Intelligence Unit served during the Vietnam War.

Current operations reflect the changes in national defense priorities. Key among the changes is the renewed concern about the Australian operational environment and the surveillance problems it presents. There are similarities between the current circumstances and those that led to the formation of the Corps in 1907.

Developments in combat surveillance, electronic warfare, command and control, and the electronic battlefield are being closely monitored. Field units and headquarters staffs are being reviewed with consideration of operations above divisional level, and support to armored and mechanized operations. Considerable research is being conducted to determine the best type of equipment for the Australian environment. Not all equipment developed for use by NATO is suitable for the harsh physical environment, or the size and shape of the likely area of operations facing Australia.

The Army's ability to gather battlefield information is being improved with the introduction of surveillance and locating radars, thermal imagers, and enhanced electronic direction finding and intercept equipment. To process the information gathered by these equipments, and to better match the characteristics of the future battlefield, the Army is progressively developing an automated command and control system. Operations and intelligence sub-systems will be established initially followed by subsystems for fire support, air defenses, airspace control, administration and the like. The intelligence and operations sub-systems have been allocated a high priority in the Army's requirements.

The emphasis in the Australian Army is to produce officers and non-commissioned officers of a broad military experience. This is achieved through a balance of careers between regimental, staff and technical positions, and an individual training requirement encompassing a body of knowledge required by all members of the Australian Army at each rank level.

The Corps draws the bulk of its officers from the three main officer-producing institutions; the Royal Military College at Duntroon and the Officer Cadet Schools at Portsea and Georges Heights. Newly commissioned officers are normally assigned to one of the major combat arms for two years of regimental duty. This serves to give an officer experience in a regimental environment and leads to a better understanding of the units he will support later in his career.

Following their initial assignment, officers are given an introduction to combat intelligence, counterintelligence, strategic intelligence and imagery interpretation in a Regimental Officers' Basic Course. A more detailed course covering these topics to corps joint force and Department of Defense level qualifies candidates in the Corps requirement for promotion to major. All officers are required to qualify on a series of "all-arms" courses in competition with their peers from other Corps.

Personnel of other ranks selected for entry into the Corps first attend an initial employment training course which includes instruction in combat intelligence, counterintelligence, and imagery interpretation. After experience in combat and counterintelligence assignments, nominated corporals attend a more detailed course designed to consolidate earlier instruction, and receive further instruction in security matters and the setting up and operation of a security office.

Intelligence Corps personnel may be nominated to attend a number of specialist courses including imagery interpretation, counterintelligence, interrogation and language training.

Members of the Australian Intelligence Corps have the opportunity to serve in many varied appointments ranging from participation in peace-keeping forces, exchange postings, and regimental to senior level staff appointments. In the first ten years of commissioned service, it is the aim to give officers experience in as many as possible of the following fields: formation intelligence staffwork, strategic intelligence, combat intelligence, counterintelligence, imagery interpretation, instruction, foreign languages and use of computers for intelligence purposes. Non-commissioned offi-

cers have a greater opportunity to specialize in these areas.

Although the Australian Army is developing a significant capability for independent operations, considerable emphasis will continue to be placed on interoperability with our major allies. The relationship with the United States will continue to be the cornerstone of Australian defense.

Capt. Pacey is currently an exchange officer at the Intelligence School. He is an instructor in the imagery exploitation division. Prior to his assignment at USAICS, he served with the 1st Division Intelligence Unit in Australia.

OV—1 Mohawk - Continued from page 27.

doctrine. He will coordinate the reconnaissance mission equipment modification of the A-10 with the appropriate agencies. He will handpick the Army personnel that will make up the first AID and write the training program for them. As a qualified expert in the OV-1, he will know many available resources and personnel in the "Mohawk" community and will know which soldiers to select. The first AID will be the finest aerial tactical intelligence unit in the armed forces.

There is another facet to be addressed in the concept being advanced. The N/AW A-10A backseaters in the Air Force are officer, navigator/systems operators. That same job in the Army OV-1 is performed by enlisted personnel. This is unsatisfactory in the A-10.

While the enlisted man can load and operate the reconnaissance equipment, he is not trained in intelligence. It is proposed that the Army use MI officers, specifically MI Advanced Course graduates, in the rear seat of the A-10. They do not need to be qualified navigators, but they should be trained in systems operation (the Army AID project officer will write their training program also). A typical mission might have an Air Force pilot with an Army MI back-seater, or an Army pilot with an Air Force back-seater. The back-seat Army MI officers will be invaluable in that they are familiar with the Threat, enemy tactics and the needs of the Army tactical commander. Recognizing an enemy situation on the SLAR screen, they could immediately pass the acquired information to the appropriate agencies and thus go a long way towards winning the AirLand Battle.

Initially, new concepts such as this one are often met with resistance simply because they are "new." They are out of the mainstream of current thinking and require considerable effort and thought, which equals resistance. This is a reaction, not an objection. Constructive change and progressive thinking are vital to an effective military and should be attempted.

Predictably, the Air Force will be skeptical of an Army aviator piloting their aircraft. It is their general opinion that only Air Force trained pilots are capable of the necessary skills. Concerning aircraft of the subsonic variety such as the A-10, they are wrong. The author of the article has flown aircraft of both services and can testify to the fact.

It costs slightly more to train an A-10 aviator than it does to train an OV-1 aviator. There would not be so much of an increase of training funds as there would be a shifting of those funds. (One less OV-1 training slot for one more A-10 training slot.)

Why not let the Air Force do it all and abandon the exchange concept? The Air Force, and this must be emphasized, is not trained in Soviet ground tactics, Army tactical commander needs, and certainly does not consider Army intelligence as part of its mission. The personnel exchange program will essentially eliminate this problem by forcing interservice cooperation and information exchange.

What are the risks? They are low relative to the potential for great gains. There is no danger of cost overruns which often lead to project cancellations, dollar loss, and ill will. Should the program fail, there will have been no great loss of funds in general because no large dollar amounts will have been committed. There will simply be one MI Army captain looking for a job. The risk to the Army is minimal. The AID concept must be attempted and the risk must be taken. The potential for failure is small. In contrast with other replacement projects currently being explored, the potential for success appears much greater.

What are the advantages? The military will have an outstanding aerial intelligence unit created from current assets of the latest technology. It will be available in a relatively brief period of time and be deployable, survivable, and immensely effective in helping with the AirLand Battle. Of almost equal importance are the advantages to be gained from the interservice cooperation that will evolve. The dialogue between aviation and intelligence personnel of the two services will serve to build mutual respect and understanding. This will increase intelligence capabilities. The unit will have high visibility and will carry an elite status as well as displaying a high level of morale. Commanders will not hesitate to ask for AID. It will help them win!

Footnotes

1. "A-10 Thunderbolt II," Air Force Magazine, May 1982, p. 157.
2. Ibid.
3. "Fairchild Republic Night/Adverse Weather A-10," ***Jane's All the World's Aircraft,*** 1982, p. 336-337.
4. TM 11-5895-1078-10, Operator's Manual: Radar Surveillance Set, AN/APS-94F. October 1981.
5. Andrews, Walter. "Work of Hill 'Reformers' Questioned," Army Times, June 21, 1982, p. 23.
6. Mann, Paul. "Increase Proposed for National Guard Fleet," Aviation Week and Space Technology, April 19, 1982, p. 72-73.

Capt. Lauran Paine, Jr., is currently serving in a Full-Time Manning position as Battalion Plans and Training Officer for the 641st MI Battalion (Aerial Exploitation), Oregon Army National Guard. He formerly served as operations officer for B Company, 15th MI Battalion (Aerial Exploitation), Fort Hood, Texas. An MI Advanced Course graduate, Paine holds BA and MS degrees in Political Science. Paine is a former Air Force pilot, with more than 4000 flight hours in both fighter and transport aircraft including 139 missions in Vietnam. Currently, he has over 800 hours in the OV-1 "Mohawk."

Reliability, Availability and Maintainability

A fundamental look from a tester's viewpoint

by Mr. Daniel J. Peddicord

Reliability, availability and maintainability has always been an important part of the materiel acquisition process. No one wants to spend money only to end up with a system that doesn't work, is difficult, or impossible to maintain, or is never available when it is needed. In the past decade, it has suddenly become a primary concern in the development of our weapon systems and a GAO auditing target. Without proper RAM considerations, the required levels of effectiveness and reasonable life cycle costs cannot be achieved.

Recognizing that the totality of specialized knowledge needed to test RAM requirements transcended the capabilities within TRADOC, Gen. Donn A. Starry gave firm direction to resolve some of the problems. He pointed out that we were not doing our job well and that the primary causes of our difficulties were inadequate command attention, inadequate staffing of RAM elements, lack of qualified people in RAM positions, and inadequate coordination and processing of requirement and testing documents. This letter brought about a lot of improvements in some areas, but we have a long way to go before accomplishing the full intent of General Starry's letter.

The purpose of this article is to discuss some basic RAM parameters and their use along with promoting some test philosophy.

The most common expression of reliability is in terms of mean time between failure. MTBF is defined as total operating time divided by total number of failures which implies that the failure distribution is exponential even though this is not always true. However, since a starting point is always necessary, the exponential is a logical assumption to make prior to having any data. An important fact to keep in mind when dealing with MTBF is that there is a 63 percent change of failure before the mean is reached, not 50 percent as might be expected. Another way of saying this, is that the probability of successfully completing a mission, whose length is exactly equal to the MTBF of the system, is only 37 percent.

The next parameter to discuss is the mean time to repair. Maintenance times generally are log; normally distributed, but when the times are short enough, the log normal sufficiently mimics the exponential so that again the exponential distribution is often used. It is defined as total corrective maintenance time divided by the number of maintenance actions.

The third parameter, availability, comes in several forms. The most often desired form is operational availability. It is the percentage of time that a system is available for use and is given by:

$$A_o = \frac{OT + ST}{OT + ST + TPM + TCM + ALDT}$$

OT = Operating Time
ST = Standby Time
TPM = Total Preventive Maintenance Time
TCM = Total Corrective Maintenance Time
ALDT = Administrative and Logistics Delay Time

Because ALDT is sometimes impossible to determine in a test situation, achieved availability which assumes an ideal support environment is often used. As is given by:

$$A_a = \frac{OT}{OT + TPM + TCM}$$

and is very useful when attempting to compare test data taken from different test locations.

MTBF combined with MTTR can be very revealing to the decisionmaker. If test results confirm an exponential distribution, the expected number of failures during an interval of time can easily be obtained by merely "plugging" the MTBF value into a Poisson distribution. Knowledge of the probable number of failures, coupled with knowing the MTTR, can provide an estimate of the total maintenance manhours and the number of maintenance personnel during the life cycle of the system. With a little more information such as skill level and MOS, the life cycle maintenance costs can easily be computed. Thus the decisionmakers are able to see the direct effect of accepting a system at various MTBFs.

Although requirements documents have not reached the point of providing any system effectiveness criteria, SE is something we should be interested in. SE involves a parameter called "design adequacy" which means that if a system is designed to jam 100 frequencies but only jams 90 frequencies, the design adequacy is said to be 90 percent.

System effectiveness is defined as:

$$SE = A_o\ R_m\ D_a$$

Where

SE = System Effectiveness
A_o = Operational Availability
R_m = Mission Reliability
D_a = Design Adequacy

Although SE can be used in other ways, for the sake of brevity we provide the following example:

Given
$R_m = .9$
$A_o = .9$
$D_a = .9$

If 10 systems are required to perform a mission, how many of them should we buy?

$$SE = (.9)\ (.9)\ (.9) = .73$$

Total number of systems required (n) is:

$$N = \frac{10}{.73} = 13.72$$

or 14 systems.

We previously stated the definition of MTBF as total time divided by total number of failures. Now is the time to lightly delve into some subtleties that are easily overlooked. Before we actually perform this simple division, we must establish that the data are exponentially distributed. If more than one system is under test, we must establish that all of the individual systems have "reasonably" the same mean, as well as having the same distribution, and that the failures in one system are independent of failures in the other systems.

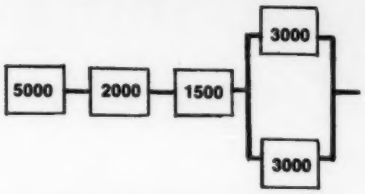
This independence is often apparent but because the estimated means we compute on each system will never be exactly the same, we must establish that they are, within our definition of reasonable, actually estimates of the same true mean. If these precautions are not taken, we will not have a decent estimate of the MTBF.

Since we must look at the failure rates for the individual systems before we combine our data, then we must maintain the identity of these individual systems throughout the test.

Some of the reasons the identical systems do not display identical distributions when tested are that some of the systems may have received components from bad lots. The wiring installed in aircrafts or vehicles may not be the same and burn in on some systems may not have been adequate. Also, the system history while in the manufacturers facility is often vague and many things could have happened to it.

Another subtlety that often goes undetected in requirements documents, is that these documents sometimes imply the obtaining of system reliability from unit data. This can rarely be accomplished for the following reasons:

- Failure definitions are too difficult to apply. For example, if the FD states that only two out of three units fail, will a mission failure be charged to the system. Data from individuals units tested separately would never provide information that would fit the definition.
- If the FD just happens to be such that it can be applied, for example, a very simple definition or a very simple system, another serious problem rears its head. In order to have a system MTBF of 100 hours, it would not be at all unlikely to have a system whose reliability diagram looks like this:



The numbers represent the individual unit MTBFs. Since the required test time to establish reliability is in multiples of 5 or 6, (maybe even 8 or 9) times the MTBF, it is apparent that establishing the individual MTBFs would require an inordinate amount of test time. The only way to keep the test lengths reasonable is to have a lot of identical units to put on test (a situation we have never experienced) or test the units together for the much lower system MTBF.

- If the above reasons are met another problem arises—the confidence statement cannot be made. The only value we end up with is a point estimate. The first thing proponents of this methodology usually proclaim is that a point estimate is sufficient, but there is absolutely no excuse for running an expensive test and providing such trivial information. Examine the following data for two tests.

Fig. 1

	Test Time (Hrs)	Failures	MTBF Point Est.	MTBF Lower Limit 90% Conf.
Test 1	1000	50	20 hrs	16.57 hrs
Test 2	20	1	20 hrs	5.14 hrs

Even though the two point estimates are identical, intuitively we know that Test 1 is a much better test. How do we convey this to decisionmakers, who often just compare MTBFs with MTBFs of similar equipment or who are usually unaware that it makes any difference? The confidence level is an excellent tool to reflect the quality of the test and eloquently states the situation as can be seen in figure 1.

These are some of the reasons why we must confine our testing to systems and not "calculate" reliability from data on the individual units. Other things such as mission profiles also come into play and whether we end up with an operational test at all could be in question. The waters of testing are muddy enough without any additional complications.

Although we have just touched on a vast subject we hope the reader now has a better understanding of RAM and some of its branches. It is appropriate to mention two unexplored but worthwhile goals for which to strive.

Given the data obtained on test, information from the combat developer on what assurance level is required to support the system (i.e., probability of having a spare unit when you need it), and the cost of the units, an **optimum** spares kit can be calculated. At present, only an educated guess is made and later verified during testing. This does not insure that we do not have a tremendous overkill.

A similar opportunity exists for preventive maintenance studies. At present, PMs are recommended based upon past experience, but test methodology exists to enable us to find the **optimum** PM periods which could save an untold number of dollars during the life cycle of the systems.

Although there are areas too numerous to mention that have been left totally untouched in this article, hopefully the information has been useful. Commanders at all levels are encouraged to continue to follow the admonition of Starry and take the necessary corrective action to improve the RAM posture within TRADOC.

Daniel J. Peddicord is chief of the Reliability, Availability and Maintainability branch, U.S. Army Intelligence and Security Board, Fort Huachuca, Ariz.

Cryptocorner

by Walter B. Howe

The problem below is enciphered by a simple substitution system. Each letter of plain text is replaced by a cipher text letter. The substitution is consistent, repeated plain text letters are always replaced by the same cipher text letters. Word lengths are correctly shown. Solve by trying to recognize common letters or words. Patterned words with repeated letters may help. The text will tell you how to learn more techniques of solving cryptograms.

WX BOF NQVOB JOTEWQZ MKOPTNRJ TWUN GYWJ OQN, GSUN GYN FJSWJI SHHM HOFKJN SPOFG HKBMGSQSTBJWJ. BOF HSQ TNSKQ RFHY ROKN SPOFG GYWJ RBJGNKWOFJ SKG.

Continued on page 52

Training Questioning Technique: Toward a Holistic Approach

by CWO 2 George Striker

Situation: An interrogator (I) is questioning a prisoner (PW), a former rifle platoon leader, whose mission was to defend a bridge. The PW is honest, cooperative, and at times volunteers good information about his unit. The interrogator gets to the last intelligence requirement—the strength of a bridge.

I: (Pointing to a map) "What is the strength of the bridge you were defending?"

PW: "I don't know."

I: "You ought to know. You were about 500 meters away. Think hard. Remember, all of our bargains depend on your being truthful . . ."

PW: "Please. I really have no idea."

I: "All right, Stay here until I return. Guard, watch the prisoner."

The interrogator reports to the supported unit and it is generally satisfied. It is also understanding about the negative information on the bridge—"Can't expect him to know everything, I guess."

We have reason to be dissatisfied with the above effort, though not because the hypothetical interrogator (HI) was unsuccessful. The fault lies with the very limited scope of the questioning regarding the intelligence requirement. In fact, HI barely met the current doctrinal requirements and minimal school and soldier's manual guidelines. Yet in training, there are only two unpromising methods used to expand HI's horizons. The first is to insist on more questions. This is all but unacceptable because the trainee historically goes blank—if he could have thought of more questions, he would have asked them. The second and usually follow-on method is to supply questions in whole or in part so the trainee may record them. This gets him out of a temporary bind, but is often responsible for the trainee dropping leads in later interrogations because the entire rationale behind the question is missing. Further, not versed in the process of question development, the trainee will come up dry when a new or unpracticed area is entered, or when he is unsuccessful with such recorded questions.

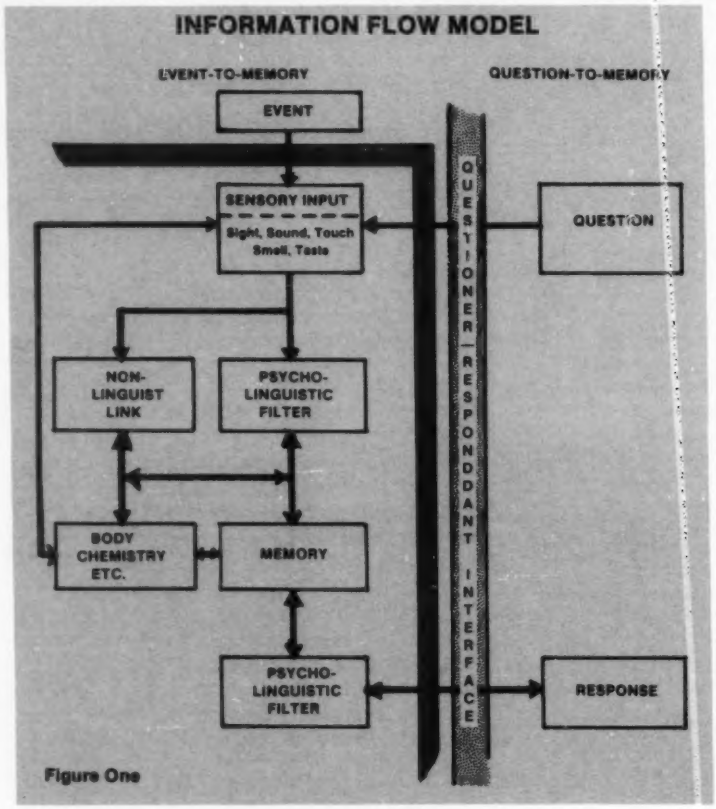


Figure One

Psychologists, educators (especially in special education) and learning theorists have been reporting theoretical, experimental and practical work relevant to questioning techniques for more than a decade. Studies in technical fields such as neuroanatomy, psychopharmacology, physiology, psycholinguistics and psychometrics can be summarized in terms we can appreciate.

Essentially all this work points to trivial observations which have a profound effect on the methodology of questioning technique training:

(1) Questioning is a two-party process.

(2) Each person has a sensory system, language-culture system, a complex physical chemical system, and a data base that can interact with itself.

(3) To get to another's data base

we must pass through the other systems.

(4) To respond we are influenced by the other systems and the question.

(5) A question must mean as nearly the same thing to both parties as feasible.

The interrelation of these points is a matter that must be understood. When the question, "What time did the tanks pass your position," is asked of a person unaccustomed to watches, it is obvious that the questioner cannot legitimately expect an answer as precise as "3 PM."

Figure one shows a simplified information flow model. The numerous links and feedback relations can be seen in the use of many bi-directional arrows. This provides a clue as to why it is hard to remember some things or why we have to ask our closest friends more than one question to get some unclassified information.

The example illustrates where questions must be well designed to pass through with some success: the environmental, sensory, and psycholinguistic systems. The manner in which a question is given addresses these factors implicitly or explicity. Explicit addressing refers to a question element (a word or word group) that details an idea or presentation in such a way that a large area of memory is stimulated. Maps or sketches are used, verbal pictures painted, synonyms and rephrasings produced. Such techniques lead the source to focus attention and regenerate sufficiently vivid experience such that the desired information can be recalled with greater assurance. Implicit addressing, on the other hand, is less stimulative—"What is the strength . . .?" Typically, questions fall somewhere in between. There is nothing intrinsically wrong with implicit addressing. One must simply be able to recognize its use and take steps toward a more explicit approach when an answer cannot be supplied readily or when no information was given to a first question.

Finally, a simple way to use analytical process needs to be developed. A suggested scheme employed by the author is a purpose, function, composition (PFC) analysis . Purpose covers the reasons for being, missions, etc. Function covers operation, tactics, etc. Composition covers design, structure, materials, manning, etc. The analytical technique needs to be applied to the intelligence requirements to see how they can be translated into stimulating aids, questions and narratives. In the situation given at the beginning, it was apparent the interrogator failed to look at the requirements in terms of questioning another person. How often does a young interrogator simply repeat the very phrasing of an intelligence requirement or turn it into a question form. The inability to develop alternative questions indicates poor analytic work.

Figure 2 points the way in which PFC analysis of requirements, attention to the environmental, sensory and psycholingual factors in question elements, and the addressing of these factors in questions can be integrated.

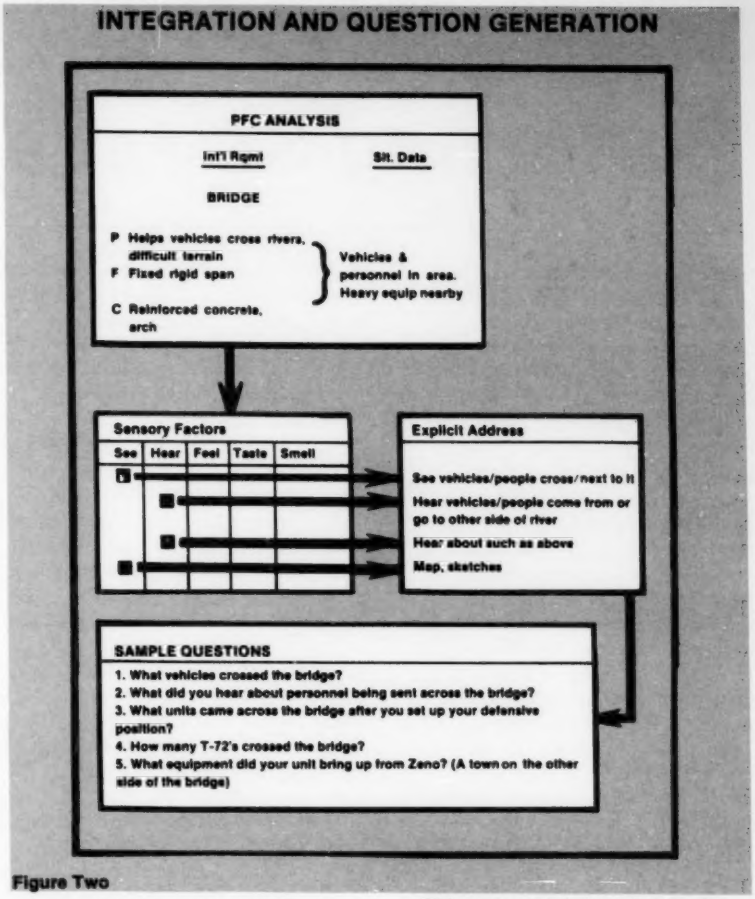


Figure Two

This approach brings the teaching of question technique more into the area of the definable and observable. Criterion referenced instruction that is meaningful to the student is closer at hand. Through this method, the intuition and experience of the student can be exploited to his benefit, and obvious courses and yardsticks can be followed and applied. This method only makes clearer that good questions are not derived from magic, but from hard work.

CWO 2 George Stricker is currently attending DLI enroute to Korea. His previous assignments include the 502d MI Battalion, Korea, the 107th CEWI Battalion, Fort Ord, Calif., and 529th MI Company, Fort Hood, Tx. He was an instructor and Soldiers Manual developer at Fort Huachuca, Az. Stricker is a graduate of MIWOAC and has an MA in international education.

OPFOR

Portraying Soviet air defense

The objective of the Soviet tactical air defense system is to reduce the effectiveness of enemy air attacks. This can be achieved by forcing enemy aircraft to expend their ordnance while still beyond the effective or optimum range of their weapons or by destroying the aircraft when they come within effective range of Soviet air defense weapons. Either action will permit Soviet ground forces to continue their operations relatively unaffected by enemy tactical air forces.

There are two important concepts in Soviet tactical air defense efforts. First, air defense operations are considered to be an integral element of combined arms operations. Secondly, air defense of ground forces is achieved by a variety of weapons and associated equipment that together form a system of air defense.

Tactical employment of air defense assets will vary with the element to which assigned or attached—the motorized rifle company to the front.

Organic air defense in the MRC consists of one three-man SA-7 GRAIL section. One SA-7 gunner will be assigned to each motorized rifle platoon and located with the platoon leader. The tank companies do not have SA-7s but will use their turret-mounted machine guns for anti-aircraft fire.

The commander is responsible for ensuring adequate air defense for his company. For FTX/CPX purposes, he may direct massed small arms fire against Blue Force aircraft, in addition to his organic air defense assets. The norms for employing small arms fire against Blue Force aircraft are: platoon fires against a single helicopter while company fires will be directed against fast movers. Aircraft are not engaged with small arms unless they are below 500 meters in altitude and are less than 1,000 meters in range.

OPPOSING FORCE. An organized force created by and from U.S. Army units to portray a unit of a potential adversary armed force.

OPFOR portrayal of air defense tactics will be governed by the doctrinal principles of firepower, surprise and mobility. Commanders should simulate effective coordination between air defense units and supported maneuver units in order to provide all-round air defense coverage.

The air defense effort has three primary goals:

- Destroy Blue Force aircraft while they are still on the ground at airfields or in marshalling areas. This is a function of frontal aviation.
- Destroy Blue Force aircraft while in flight but still at some distance from ground forces.
- Destroy Blue Force aircraft that have penetrated into the airspace over ground forces.

The motorized rifle battalion has no organic air defense assets other than the SA-7s in its companies. Tank battalions are limited to their turret mounted machine guns for air defense. The air defense battery of the MRR will provide air defense (SA-9, GASKIN/ZSU 23-4) for the battalions. For FTX/CPX purposes, the MRR commander will provide instructions in his combat order for the employment of the assets of his air defense battery (Figure 1).

The motorized rifle division has an organic SAM regiment (SA-6 GAINFUL or SA-8 GECKO) for air defense. Soviets believe that the motorized rifle and tank battalions in a division's defending first echelon regiments will be priority targets for attacking enemy aircraft. Therefore, regimental air defense weapons are deployed well forward.

The division commander will coordinate with divisional Chief of Air Defense in establishing the division's air defense plan. The Chief of Air Defense is responsible for constantly monitoring the air space of the division and will advise subordinate air defense units over the air defense warning net. The Chief of Air Defense is also responsible for directing coordination procedures between subordinate air defense units and TACAIR.

Air defense for the army consists of one SA-4 GANEF SAM brigade and one SA-6 GAINFUL regiment. The SA-4 brigade can engage Blue Force aircraft from the army's rear to 45 kilometers beyond the FEBA. Lateral coverage will overlap with that of adjacent armies. The SA-6 regiment is used to protect army headquarters and provide air defense coverage for the army's rear echelon logistics assets. The ZSU-24s assigned to brigade headquarters provide low-level air defense for the headquarters and the firing batteries.

The front has two SA-4 brigades for air defense, as well as frontal aviation assets. It may also be assigned to augment army air defense assets. It may intercept any Blue Force aircraft that have penetrated forward air defense. The SA-4s will be assigned to protect the front headquarters.

The diverse capabilities of Soviet air defense systems will be enhanced by the inherent advantage of simulating a tactically defensive operation by the OPFOR. Accurate portrayal of the air defense coverage requires that Blue Force aircraft attacking maneuver unit formations

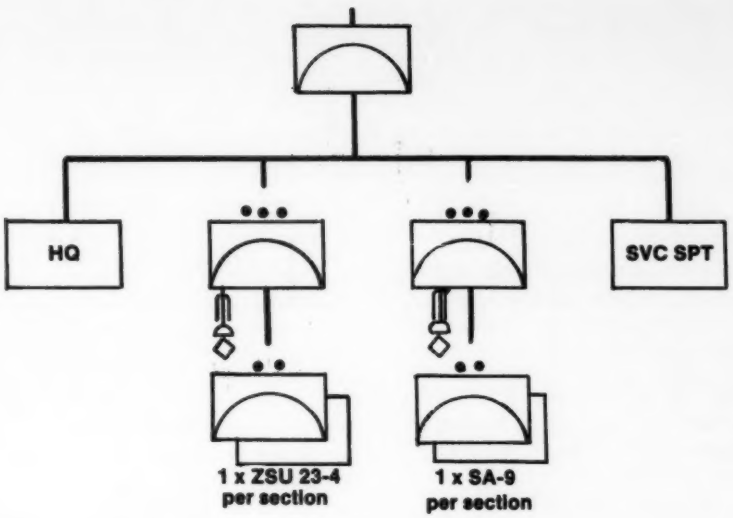


Figure 1. Air Defense Battery: MRR and Tank Regiment

will be exposed to the comprehensive envelope characteristic of the air defense employment.

Initially, Blue Force aircraft will be detected by early warning radars and engaged as far forward as possible by aviation assets. Those aircraft that slip by would then enter the engagement envelope of SA-4 units from army and possibly front, depending on the scenario. Blue Force aircraft entering into the division's airspace can expect to be engaged by SA-6s or SA-8s. These missiles would probably force the aircraft down to a lower altitude where they would be engaged by SA-9s and ZSU 23-4s. Surviving aircraft that attempt to attack maneuver battalions can expect to be engaged by SA-7s, air defense ambushes in the form of massed small arms fires, or turret-mounted machine guns in the case of tank units.

USAICS Notes

MI ARTEP manual update

This fall 12 new Army Training and Evaluation Programs will be printed and should be in the field by early next year (2nd quarter FY 1984). Included in this ARTEP package will be the first MI battalion ARTEPs developed by the U.S. Army Intelligence Center and School. The Tactical Exploitation ARTEPs are based in part on training materials developed by the 163rd MI Battalion, Fort Hood, Tex.

Look for the following MI ARTEPS early next year:

ARTEP TITLE

34-105 MI Battalion (CEWI) Operations, MI Group (Corps)
34-106 HQ, HQ & Service Company
34-107 Operations Company
34-108 Communications Company

34-125 MI Battalion (CEWI) Tactical Exploitation, MI Group (Corps)
34-126 HQ, HQ & Service Company
34-128 OPSEC Support Company
34-129 Electronic Warfare Company

34-145 MI Battalion (CEWI) Aerial Exploitation, MI Group (Corps)
34-146 HQ, HQ & Service Company
34-148 Aviation Company, Electronic Warfare

34-114 MI Company (CEWI) (Armored Cavalry Regiment and Support Brigade

Collective Training Division, USAICS, is interested in products your unit may have produced to support or complement your MI ARTEP (e.g. additional or revised training and evaluation outlines, situational scenarios, or other items adding realism to the MI ARTEP).

Written or telephonic responses would be appreciated as well as copies of your products. Comments may be forwarded to Commander, USAICS, ATTN: ATSI-TD-CTA, Fort Huachuca, Ariz. 85613 or telephone AUTOVON 879-3185/3207/5769.

Lower SQT scores

Soldiers and supervisors have noted that test scores on the refined 1983 Skill Qualification Test are lower than previous years' scores. The older three-component SQT was a combination of results from the Hands-on, Job Site and Skill Component while the current SQT scores reflect only the results from the Written Test. Analysis of current SQT scores reveals that the scores are comparable to what was reported for the Skill Component portion of the former three-component SQT. Under the refined Individual Training Evaluation Program, the Common Task Test is scored separately from the formal Written Test. Commander's Evaluations are scored locally and are retained solely within the unit.

Soldiers' Manual update

Interim Soldiers' Manual Supplements, which contain Evaluation Guides to support the Commander's Evaluation phase of the Individual Training Evaluation Program, will be published within the next six months for MOSCs 05D, 05G, 05H, 05K, 17K, 26C, 96B, 96C, 96D and 97B. Future MOS-specific Soldiers' Manuals will incorporate an Evaluation Guide for each Soldiers' Manual task.

Training Hotline

The Directorate of Training Developments, U.S. Army Intelligence Center and School, Fort Huachuca, Ariz., has a **Training Hotline** which can receive telephone queries regarding USAICS, Fort Huachuca, actions, programs, and products from anywhere in the world 24-hours a day.

- Does your unit **ARTEP** contain all critical tasks actually performed and identify all performance objectives required of your unit?
- Does the **Soldiers Manual** for your **MOSC** contain all the tasks you are required to perform?
- In your opinion was your **Skill Qualification Test** valid, and did it contain only the material that pertains to your MOSC?
- Are sufficient TEC materials available to allow you to study and/or train your **MOSC** skills?
- Does the **OPFOR** program meet your unit's needs and are sufficient **OPFOR** materials available for your training?
- Do you know what the technical support package is?

If the answer to any of these questions is **No,** then call the **Training Hotline.** You can help yourself, your unit, and the Army improve our training posture, individually and collectively. Feel free to call the **Training Hotline** and give us your recommendations for intelligence training improvement or your training problems. The key to developing effective, valid training materials lies in field units where constructive feedback and criticism from users are generated.

To use the **Training Hotline,** dial **AUTOVON 879-3609** or **commercial (602) 538-3609.** Your message will be recorded automatically, so be sure to give your name, unit, telephone number, and clearly state your message. Please limit your call to three minutes. Compose your message beforehand to insure it contains all the necessary facts. Your recorded message will be acted upon either the same day or the first duty day following your call. You will be provided a response, either preliminary or complete, within five duty days.

Users are invited and encouraged to take the initiative in improving intelligence training products and methods. Use the **Training Hotline,** call the responsible USAICS element direct, or write: Commander, U.S. Army Intelligence Center and School, ATTN: ATSI-TD, Fort Huachuca, Ariz. 85613.

USAICS CSM Hipsley to retire

CSM John R. Hipsley has been the U.S. Army Intelligence Center and School command sergeant major since July 1979. Hipsley will retire in October of this year with nearly 30 years service in the U.S. Army. MI Magazine spoke with Hipsley shortly before his replacement, CSM Sammy W.Wise, came on board with the school.

Hipsley said, "I have seen the state-of-the-art of military intelligence literally go from bailing wire and borrowed receivers, when I joined the ASA in 1954, to the highly sophisticated, computerized high-tech equipment that we train soldiers to operate today. I think that if I had my whole life to live over, I wouldn't have done a thing different."

On making a career of military intelligence, Hipsley said, "My advice to soldiers considering making a career of military intelligence is to seek out tactical assignments; try to influence their assignment pattern to get experience in the strategic arena as well as the tactical; use the educational opportunities the Army offers . . ."

Hipsley's plans for his retirement are still open. "My intention right now is to take advantage of my GI Bill and finish my bachelor's degree which I have worked on piecemeal throughout my career," he said. "I am quite a hobbyist and enjoy leathercraft and woodworking; I've considered doing that as a means of supplementing my retirement pay. I imagine that after about a year of working on my home in Sierra Vista and doing all the things I haven't had a chance to do while on active duty, and getting my degree, I'll probably start a second career."

He added, "I'll probably try to end up back at what I've spent 30 years learning how to do best, and that's military intelligence."

Cryptocorner

Continued from page 47

Solution

If you enjoy solving problems like this one, take the USAISD ACCP course about cryptanalysis. You can learn much more about this mysterious art. (Keyword: ***SPHINX***)

Courses Scheduled

Following are the class dates for selected USAICS courses for fiscal year 1984.

Military Intelligence Officer Advanced	**04 Oct 83—25 Apr 84**
3-30-C22	**10 Jan 84—13 Jul 84**
(26 wk)	**03 Apr 84—05 Oct 84**
	10 Jul 84—29 Jan 85
Electronic Warfare	**30 Sep 83—14 Oct 83**
Staff Officer	**01 Dec 83—16 Dec 83**
3B-ASI-5M	**09 Mar 84—23 Mar 84**
(2 wk)	**11 May 84—25 May 84**
	06 Jul 84—20 Jul 84
	07 Sep 84—21 Sep 84
Intelligence WO Advanced	**02 Oct 83—03 Feb 84**
3-30-C32	**12 Feb 84—29 May 84**
(15 wk)	**10 Jun 84—25 Sep 84**
MI NCO Advanced	**02 Oct 83—19 Dec 83**
2-96-C42	**04 Dec 83—28 Feb 84**
(9 wks)	**12 Mar 84—25 Apr 84**
	15 Apr 84—27 Jun 84
	17 Jun 84—29 Aug 84
	19 Aug 84—01 Nov 84

USAISD Notes

SIT Trainer updates course

By Sgt. Maj. Frank W. Smith

For years USAISD has needed an update in both training strategy and equipment within the 05D10 course of instruction. With the advent of the Special Identification Techniques Trainer, scheduled for delivery in fiscal year 1986, USAISD will be able to update both the equipment and training strategy used in this training program. Soldiers using this device will have completed the Basic Morse Code Training Course using the new Morse Intercept Position Simulator.

The SIT Trainer will be used to efficiently and effectively train the soldier in all aspects of EW/SIGINT emitter locator and identification operations. The eight-week portion of the basic 231-05D10 course currently known as the "Technical Phase," is where the trainer will really come into play. By using microprocessors to simulate actual appearance and functions of field equipment, with a computer link-up from the students' training positions to an instructor's control and monitoring terminal, USAISD can simulate any worldwide mission and/or position. This system will be capable of simulating a signal environment compatible with current field conditions and will require the student to perform as he would in the field by operating simulated field equipment. This trainer will allow updating of equipment as it changes with minimum costs as well as updating software as the mission changes. The trainer will allow the instructor to make on the spot corrections and give immediate assistance in any problem the students may have. Consequently, each student will be more thoroughly trained with a resulting mastery of designated critical tasks and an increased proficiency in the use of state of the art equipment compatible to that presently in use in the field.

The SIT Trainer will provide a more active training environment and will enable USAISD to more effectively train a great number of students and make better use of personnel and equipment resources.

05D field training

Classrooms are not the only places where you can find students learning. For 05D, Electronic Warfare, Signal Intelligence Emitter Identifier Locator students, the final week of Advanced Individual Training is spent in the field.

"We show the 05D10 students how to tactically deploy the radio direction finder," said SSgt. William S. Perdue, 05D instructor. "We had 12 students in the field from April 4 through 8."

This type of Field Training Exercise takes place about once a month. "In the classroom we see the technical aspect of setting up a radio direction finder, but in the field we actually see it happen," said Spec. 4 Douglas K. Stream, 05D student. "It is also nice to get out of the classroom."

"It's the real thing in the field. I've learned more this past week by doing the actual hands-on training than I did while I was in the classroom," said Pvt. 1 Carlos L. Gonzalez, 05D student.

USAISD Instructor of the Year honored

The United States Army Intelligence School at Fort Devens honored its best instructors on May 5 at the Hodges Theater on Fort Devens at the 17th Annual Instructor of the Year Ceremony.

Brig. Gen. Sidney T. Weinstein, Commander/Commandant, U.S. Army Intelligence School, presented

the Instructor of the Year, 1st and 2nd Runners-up with their awards.

SSgt. Matthew J. Hampton, instructor in the Maintenance Training Department was named Instructor of the Year for 1982. He received an Army Commendation Medal for his selection.

MSgt. Stephen W. Crump, noncommissioned officer in charge of the Professional Development Division, Electronic Warfare/Cryptologic and Security Department, was named 1st Runner-up. He received an Army Achievement Medal for his selection.

Second Runner-up, SSgt. Wayne L. Caudill, an instructor of International Morse Code in the Communications Intelligence Department also received an AAM for his selection.

Hampton began instructing Electronic Warfare Equipment Repairers (33S) shortly after he had graduated from the course in May 1981. He was selected as Instructor of the Month in July 1982, which made him eligible to compete for the Instructor of the Year honor.

"It is a really good feeling being acknowledged by being selected as Instructor of the Year; however, I don't instruct to get rewards. I do it for the students," Hampton said of the honor.

Army Training 1990 and USAISD

By John J. Carey

The Army Training 1990 Action Plan is a Training and Doctrine Command initiative to shape the training of the Army and to establish a common frame of reference from which to develop and implement the strategies and programs best suited to train soldiers. Army Training 1990 actions are not totally new. They draw together several existing programs and some new initiatives into one plan.

The major considerations of the AT 1990 plan are institutional training and unit training. The subcategories of institutional training are:

Advanced Individual Training. Basic Training combined with AIT constitutes a soldier's initial entry training. Under Army Training 1990, Basic Training will be examined and revised to produce a combat ready soldier. The combat skills will be sharpened in AIT while a soldier learns the skills of his military occupational specialty. Soldiers in Career Management Fields 98 and 33 will learn the critical skills of their MOS so that they can assume rapidly, after a short initial on-the-job training period, the duties in field units.

Primary Technical Course. For CMFs 98 and 33 there is no PTC, as such. The nature of jobs to which AIT graduates are sent require that many skill level 2 tasks be learned in AIT, combined with target area orientation training.

Basic Technical Course. Skill level 3 tasks are taught in BTC. The course will be focused to teach the soldier how to train. Considerable emphasis will be placed upon NCOs at skill level 3. They are the most important trainer in a unit and they will be prepared to handle the role. For efficiency reasons, the skills that are common among the different basic technical courses will continue to be taught in one block of instruction. The soldiers then break out into their own MOS specific training.

Advanced NCO Course. The course will continue to prepare career soldiers for duties as a platoon sergeant or comparable positions. The training role of the NCO will be stressed. All CMF 98 and 33 NCOs will attend a common course. CMF 33 NCOs, because of unique technical requirements, will continue to have a specialized annex to the course.

The Army Training 1990 Action Plan addresses the following categories of unit training:

Integration. How is the newly assigned soldier made a contributing member of the team, section or platoon? Unit needs will be analyzed and the proponent service schools will determine how to support field commanders. CMFs 98 and 33 pose some special considerations. Soldiers going to strategic units must "hit the ground running," so the AIT graduate must have a full suite of skills. The demands of the live mission are such that integration of the new soldier must be swift and effective. On the other hand, soldiers going to tactical CONUS units may have more time to be integrated and a different training approach might be appropriate.

Sustainment. How is proficiency maintained on skills learned in resident training, especially when the skill is not used frequently? In CMFs 98 and 33, most soldiers practice many of their technical skills as a routine part of the job. There are skills which relate to contingency missions and proficiency in them must be maintained too. Training will be made available and exported from USAISD. Soldiers assigned to units without live missions still present a unique challenge in realistic operational training. Technical support packages will be developed to augment the Army Training and Evaluation Program. As training needs are identified and refined, programs and assets will be modified to meet the needs. USAISD expects better use of the National Cryptological Training School, and readiness training programs such as live environment training, specialized operational training, the TROJAN programs (which provide an operational environment for SIGINT personnel in garrison), and forward area training. Sustainment of trained skills is the joint responsibility of USAISD and the unit.

Transition. As the force modernizes, significant training issues must be addressed. Training to operate and maintain new systems and equipment has several elements: training for soldiers assigned in the unit prior to arrival of the equipment; training of individuals newly assigned to a unit after the equipment has arrived; and, in cases where the displaced equipment moves to the Reserve Component, the means of providing skills to operate and maintain the equipment. Transition training will focus also on the doctrinal aspects of the new equipment to make sure that its use complements accomplishment of the mission of the units.

Cross Train/Train-up. The Army Training 1990 Action Plan will look at ways to provide soldiers with the opportunity to cross-train or train-up to a higher skill level. Use of Extension Training Materials will play an important role in these categories of training. The challenge in a rapidly changing technological area is to be able to produce and distribute extension training before it becomes obsolete or unneeded by change.

Reserve Component Training. Under Army Training 1990, training for CMFs 98 and 33 will continue to be structured as it is now. RC personnel must attend resident AIT to obtain a SIGINT/EW MOS. As sustainment training materials are developed, needs of the Reserve Component will be addressed further and satisfied as much as possible. Most of the facets of Army Training 1990 will be reflected in the Individual Training Plan for each MOS. USAISD will incorporate an MOS architecture which will become the cradle to grave training strategy. The task list for each MOS will be reviewed and updated to continuously match required field performance. The ITP will show clearly what a soldier in CMF 98 or 33 has to be able to do and the how, when and where he will be trained to do it. Commanders and unit trainers will have to use the ITP to ensure that they fulfill their responsibilities to their soldiers. Army Training 1990 is an ambitious plan to move training forward in a coordinated manner. USAISD's complementary planning will be in concert with TRADOC.

Military Intelligence Proponency

by Brig. Gen. Sidney T. Weinstein

In response to a number of questions from the field, I am going to discuss the Army's new Specialty Proponent System: what it means, how it works and some of the recent activities we have undertaken here at the Home of Military Intelligence.

The regulatory authority for the system—AR 600-3 (Final Draft)—designates a proponent agency for each commissioned officer specialty code, warrant officer MOS and enlisted career field. The proponent is assigned primary responsibility for providing recommendations to the Army's Deputy Chief of Staff for Personnel on matters dealing with life-cycle management functions (see box). Within these functions, the proponent has 37 specific responsibilities.

As Commander, USAICS, I am the proponent for all four MI officer specialties, 13 warrant officer MOSs, and 22 enlisted MOSs in three career management fields. Some 26,000 service members are affected.

Perhaps the best way to explain how the system works is to describe the functional review instituted by the DCSPER DA in 1982. In late September of last year, Lt. Gen. Maxwell R. Thurman reviewed MI to identify personnel and training problems, then fix responsibility for solution.

The first step was to describe force modernization dynamics, that is, new systems, force structure changes and projected authorizations through 1988. Next, MILPERCEN laid down projected inventories, by specialty, for the same time period. Following our briefing on initiatives and proposed solutions, the DCSPER directed 62 specific actions of the Army staff and USAICS. We all report progress monthly to the DCSPER.

It became apparent that I needed some dedicated help to execute my charter as the proponent, taking the macro view of MI, as opposed to the functional perspective codified by the TRADOC school model. On October 1, 1982, I established a small MI Proponency element with people assigned here and at Fort Devens, all of whom work directly for me.

The guidance to Proponency personnel was simply: "Take care of the soldiers." All our analyses, initiatives, and proposed changes are in the context of that dictum. Our analytical perspective is geared to the best interests of the Army at large, with MI as a microcosm of the force. In short, proponency looks at the past and present, and plans for the future to ensure that the Army's most valuable asset—soldiers—are trained and managed to meet the Army's requirements, as well as individual career objectives.

I initiated a Proponent Significant Activities Report, which is sent directly to all MI general officers, commanders of groups, battalions and field stations, corps and division G2s, and a number of other agencies. This is my way of executing one of my proponent responsibilities: establishing and maintaining communications with my constituency.

To illustrate that magnitude of the proponency effort, I will highlight some recent developments for your professional information.

MI Officer Training. Beginning in October 1983, all MI lieutenants will attend the new MI Officer Basic Course, a 24-week course which will produce Tactical All-Source Intelligence Officers, SSI 35A. We have recommended to the DCSPER a single accession specialty (35) for all MI lieutenants beginning in fiscal year 1984, as well as a recording of all 35A lieutenant MTOE/TDA

positions. The vast majority of graduates will be assigned to echelons corps and below; we are not training them to fill captain's jobs at echelons above corps. Captains will be trained to meet captain's requirements.

Career Management Field Analysis. In December 1982, we initiated a comprehensive review of all three enlisted MI CMFs. The analysis was done by senior NCO subject matter experts and led by senior warrant officers. Their findings and recommendations are being integrated into a management action plan to be forwarded to the DCSPER after appropriate staffing.

Advanced Educational Requirements. We have developed models which correlate MI officer specialty codes to academic disciplines to discrete staff functions within a higher headquarters element. The models give user agencies a rational basis to define requirements for MI officers with advanced degrees.

Army Selection Boards. Revised procedures permit me, as the MI Proponent, to provide supplemental material to officer command, promotion, and school selection boards. I will also select the enlisted selection board MI representative and prepare him or her for this important duty.

Officer Professional Development. At the invitation of the Director, Officer Personnel Directorate, MILPERCEN, we reviewed the MI chapters of DA Pamphlet 600-3. The updated version of this important document will reflect our rewrite, which among other things, describes our new accession and training strategy; prescribes alternating assignments between tactical and non-tactical echelons as the norm, consistent with Army requirements; and establishes preferred undergraduate academic disciplines, by specialty, as a guide for cadets who desire branching to MI.

Direct Combat Probability Codings. We are in the midst of an effort to validate these codings for MI TO&E units. The process involves a line-by-line examination of positions, considering duties involved, wartime mission, battlefield location and doctrine. Our overall objective is to ensure success on the AirLand battlefield, while providing equitable career progression opportunities for the men and women of MI. The results of the initial coding efforts closed, by coding P-1, a total of 59 MI units to females. Our June 1983 reassessment resulted in recommendations to the DCSPER that only two MI TO&Es be coded P-1, thus closing eight units of the Active and Reserve Components. The affected units are seven armored cavalry regiments and one collection and jamming company (82nd Airborne Division).

Shortages of MI WO/NCO. We are looking at a number of innovative options to ease the field commanders' burden caused by chronic shortages of senior NCOs and warrant officers in some MOS. Under consideration are proposals to combine selected warrant officer MOS; convert—temporarily or permanently—some warrant officer positions; a warrant officer candidate course; retention incentives; federal income tax advantages; and so forth.

Assignment to USAICS. An officer or senior NCO who expects to have a rewarding career in MI will make a professional contribution to the branch at the Home of Military Intelligence. This new policy has been announced in my Proponent Significant Activities Reports and is supported by the Commander, MILPERCEN. Recognizing that opportunities for assignment to the Intelligence Center are limited, the policy also encompasses as career-enhancing an assignment to an MI position at the Command and General Staff College; Intelligence School, Devens; other service schools; the U.S. Military Academy; and ROTC instructor duty.

Army Regimental System. I am convinced that early incorporation of MI units into the regimental system is in the best interests of MI. I have forwarded a concept outline for comments by senior MI commanders and staff officers and will consider their views as we refine the proposal.

I believe that you now have a better appreciation of the Army's new Proponency System in general, and how we are making it work at the Home of Military Intelligence. I encourage you to let us have your ideas on ways to improve our branch. You may write directly to me or to the Chief of MI Proponency, Office of the Commander, USAICS, Fort Huachuca, Ariz. 85613.

Officers Notes

MI information service

MI Branch, OPMD, provides information on available assignments, professional development and other pertinent items 24 hours a day. A recording containing this information can be contacted by dialing AUTOVON 221-7433 or commercial (202) 325-7433 at any time.

Reviewing Official Military Personnel Files

Officers desiring to review their Official Military Personnel File may do so by writing to Commander, USA MILPERCEN, ATTN: DAPC-MSR-S, 200 Stovall Street, Alexandria, Va. 22332, and requesting a microfiche copy of their OMPF. The microfiche will be provided at no cost to the officer and will require approximately two weeks to process. Name, grade, Social Security number and military or civilian address must be furnished.

Officers may also arrange to personally review a copy of the microfiche at MILPERCEN by calling AUTOVON 221-9618 or commercial (202) 325-9618. Arrangements must be made at least 72 hours in advance.

Nonresident Command and General Staff College

The importance of completing Command and General Staff College level schooling prior to board consideration for selection to lieutenant colonel cannot be over emphasized. The Command and General Staff College (Nonresident) is an alternate to resident course attendance for CGSC-level credit. Nonresident course graduates remain eligible for resident course selection within the constraints of resident course eligibility criteria.

Commissioned officers in any component of the Army are eligible for enrollment in both USAR school and correspondence course options if they have:

- demonstrated potential for assignment to high level staff positions;
- completed a minimum of eight years commissioned service as of enrollment date (Active Army only);
- received credit for an officer advanced course before enrollment date (concurrent enrollment in an officer advanced course and the nonresident course is not authorized);
- not completed 18 years commissioned service as of enrollment date; and
- not completed or received credit for the CGSO Course resulting in the awarding of a diploma.

The Commandant, CGSC, is authorized to grant waivers for exceptional cases. Requests for waiver with complete justification must be forwarded through enrollment channels to the Commandant, USACGSC, ATTN: ATZI-SWE-TM, Fort Leavenworth, Kan. 66027.

The nonresident course parallels the professional development curriculum of the Command and General Staff Officer Course taught at Fort Leavenworth. The nonresident course can be completed by correspondence subcourse, attendance at a USAR school, or both. A diploma from the CGSC will be awarded to those successfully completing any of the programs.

Officers interested in applying for any option of nonresident CGSC should request an Application Enrollment Packet from the above-mentioned address.

CGSC credit and award of Military Educational Level Four are not given for completion of the nonresident programs of other services. The curricula of other services' intermediate level staff college nonresident programs are not considered suitable substitutes for the training Army officers receive in either the resident or nonresident CGSC programs.

Graduate Education for the Intelligence Officer

by Maj. Daniel Wagner

The professor is a strategic planner who has taught National Security Affairs for 17 years. Pausing momentarily to collect his thoughts, he continues speaking to the class on American National Security Policy, "The decline in American strategic thought over recent years leaves the U.S. unprepared to fight a strategic nuclear war should deterrence fail. No one wants a nuclear war, but we need strategic planning that extends beyond deterrence, to include warfighting strategy."

Down the hall, a student expresses himself in a class on Asia and the Soviet Union, "What I think we might expect from a Sino-Soviet rapprochement is not a reunified communist movement, but the neutralization of China. Were China to be neutralized, the Soviets could deal with the West without fearing a two-front war in Europe and Asia, and they would be free to use forces against NATO that are now deployed along the Chinese frontier."

These are examples of graduate education taking place at the Naval Postgraduate School in Monterey, Calif. It is education that is up to date, relevant to the military intelligence professional, and conducted in a joint-service environment at the O3/O4 level. The seven curricula offered by the National Security/ Intelligence Department meet the needs of the Army and the MI officer anxious to improve himself.

Of the many programs at NPS, the most appropriate for MI officers are within the Department of National Security and Intelligence. The rationale for most military officers pursuing graduate education in this field was set forth in a recent NPS pamphlet:

> "The military officer is an essential participant in the security affairs process. Not only does he play a substantial role in both peace and war, but also in many instances he is the principal representative conducting security affairs with other nations. As defense and security problems have become more complex since World War II, it is not surprising that national security affairs emerged as a specific discipline within the field of political science. It is this new discipline that seeks to bring a broad range of scholarly skills and specialized knowledge to the military officer in support of his concern for and conduct of security affairs."

The National Security and Intelligence Department offers three geographic and four functional specialty programs, all of which have value for MI officers. Geographic area specialties include Middle East, Africa and South Asia; Far East, Southeast Asia and the Pacific; and Europe and the USSR. Functional specialties offered are International Organizations and Negotiations; General Strategic Planning; Nuclear Strategic Planning; and Intelligence.

Generally, a Master's Degree program at NPS consists of one year coursework (four quarters averaging four courses each), successful completion of a comprehensive examination or a thesis, and language requirements, when applicable. All of the NPS programs allow electives, and specific courses as well as the

language requirement may be "validated" by coursework already completed or by a language proficiency test.

A specific example is the Army's program for training Foreign Area Officers. FAOs typically complete a Master's Degree program in National Security Affairs at NPS. This includes a geographic specialty and involves four quarters of coursework and a comprehensive examination. They then go on to six months or more of language training at the nearby Defense Language Institute.

The intelligence program at NPS involves no language training. Rather, it generally includes 18 months at the school and completion of a Master's thesis. It is an interdisciplinary curriculum, an ambitious blend of politics, science, mathematics, management, operations analysis, computer science, economics and weapons technology. The objectives of the intelligence curriculum are to provide advanced education in six areas:

1. The security interests of the United States and other major countries with particular emphasis on the military, economic, political and social factors which shape and affect their interests and capabilities.

2. The vocabulary, resources and basis of operation of military systems and subsystems which allow the incorporation of technical and environmental information into the solution of intelligence problems.

3. The strengths and weaknesses of current military systems (primarily NATO and the Warsaw Pact nations) and areas of probable improvement within the next 10 to 15 years.

4. Methods of analysis applicable to the intelligence process, with particular emphasis upon forecasting and threat assessment.

5. Problems in the administration and dissemination of intelligence information and the management of the intelligence process.

6. Techniques of interpersonal and group communication.

Whereas Army officers are enrolled in the other National Security and Intelligence, at the time this article was written, none were taking the intelligence option.

Several courses stress naval warfare and intelligence simply because the sponsors of the intelligence option are the Director of Naval Intelligence and the Commander, Naval Intelligence Command. Should the Army participate, the ACSI or USAICS could designate skill requirements and tailor a program to the Army's needs. In the interim, courses could be substituted from the more than 80 offered by the National Security/Intelligence Department for those few courses that concentrate heavily on naval matters. The Army sponsor, the NPS Curricular Officer for National Security/Intelligence, and the individual student could construct an ideal program based upon the intelligence option.

The Naval Postgraduate School confers degrees at the bachelor's through doctor's levels. The 1200 to 1500 students include officers from all the U.S. armed services, civilian officials of the U.S. government, and officers from 25 foreign countries. The school offers some 600 courses and graduates about 800 students per year.

Entrance requirements for these programs include a baccalaureate degree earned with above average academic performance, and an aptitude for the chosen curriculum demonstrated through either the Graduate Records Examination or the completion of relevant undergraduate courses.

NPS is organized academically into 11 departments and three interdisciplinary groups. In addition to the National Security/Intelligence Department, the departments are Administrative Science, Aeronautics, Computer Science, Electrical Engineering, Mathematics, Mechanical Engineering, Meteorology, Oceanography, Operations Research and Physics and Chemistry. The groups include the Anti-submarine Warfare Group, the Command, Control and Communications Group, and the Electronic Warfare Group.

The school's facilities include a modern, attractive library with a large and growing collection of books, periodicals, and reports relevant to the curricula. Students may do research at virtually any level of classification.

The library's Research Reports Division maintains research and development materials at the unclassified through secret levels. Its restricted area contains card catalogs, typewriters and microfiche reader-printers for student use. It offers any student researcher two computer-compiler bibliographical search services. The Semi-Automatic Bibliographic Information Retrieval System includes all hard-copy documents held by the division. The Defense RTD&E On-Line System is able to search the more than one million documents available from the Defense Technical Information Center in Alexandria, Va.

Supplementing the library, the school's Sensitive and Compartmented Information Facility has SI and TK (SAO) holdings and work spaces. A COINS terminal will soon be added for on-line access to classified reports.

The Reader Services Division at the library maintains the open literature collection and subscribes to a number of on-line reference services. It can borrow materials on interlibrary loan through a number of subscription services. These include Lockheed Information Services' DIALOG, the New York Times Information Bank, Stanford University's Research Libraries Information Network, the Systems Development Corporation's ORBIT system, and the Central Information Reference and Control system of the Foreign Technology Divsion of Wright Patterson Air Force Base.

The school has an extensive computer center. When the first system was installed in 1954, NPS became one of the first educational institutions in the world to use computers in support of its curricula. Today, over 200 terminals linked to an IBM 3033AP system are available to students and faculty 24 hours a day, everyday.

Other facilities at NPS include a linear accelerator, electron microscopes, flight simulators, wave tanks, wind tunnels, laser and radar laboratories, and an ocean-going research vessel.

The Naval Postgraduate School is fully accredited and ranks academically with the best graduate universities in the country. Students are assigned no major duties other than

applying themselves to study. Class attendance is, of course, mandatory, and dress is civilian coat and tie.

Eligibility requirements and application procedures are stated in AR 621-1, "Training of Military Personnel at Civilian Institutions." Also, the DA Circular 621-series specifies the number of currently validated positions requiring graduate education.

For further information on the programs at NPS, write to Curricular Officer, National Security and Intelligence Programs, Code 38, Naval Postgraduate School, Monterey, Calif. 93940, or call AUTOVON 878-2228, commercial (408) 646-2228.

Maj. Daniel Wagner holds a B.A. in mathematics and an M.A. with distinction in National Security Affairs. He was commissioned in 1968 and has attended the Area Intelligence Officer Course, MI Officer Advanced Course, Airborne and Special Forces Officer Courses, and the Hellenic (Greek) Raiding Forces Free-Fall Parachutist Course. Wagner has served in Southeast Asia and is a specialist on Chinese and other third-world military forces. He is a co-author of **China, A Country Study,** published in 1981.

Unit History of 650th MI Group

On July 12, 1944, the 650th was originally formed as the 450th Counterintelligence Corps Detachment. It provided counterintelligence support to the U.S. Army during the vast offensive in the Pacific Theater. After the allied triumph in the Philippines, the 450th was disbanded in Manila on July 22, 1945.

On March 25, 1948, the 450th was reconstituted as a part of the Organized Reserves and assigned to the U.S. Army, Caribbean. The 450th provided counterintelligence support to U.S. Army Force in Puerto Rico until deactivation on August 4, 1949.

On December 19, 1951, the newly formed North Atlantic Council announced that President Harry S. Truman had designated General of the Army, Dwight D. Eisenhower, as the first Supreme Allied Commander, Europe. General Eisenhower realized immediately that a group of professional, well-trained counterintelligence agents was needed for maintenance of high standards of security for personnel and material at his new headquarters, Supreme Headquarters Allied Powers Europe. Department of the Army, tasked with SACEUR's requirement, withdrew the 450th from the Organized Reserve Corps, inscribed it on the rolls of the Regular Army, activated it on January 18, 1951, and gave it the mission of providing counterintelligence support to SHAPE and Allied Command Europe.

The 450th obtained a small villa on the edge of the Versailles, France, about one mile from Headquarters, SHAPE. The detachment was authorized a strength of 21 officers and 31 enlisted.

As Allied Command Europe's operational base increased, the 450th expanded as well in size and scope in order to provide the required CI support. The 450th changed as follows:

- In August 1952, Region I was established at Naples, Italy, to support Headquarters Allied Forces Southern Europe.
- In July 1961, Region II was established at Kolsaas, Norway, to support Headquarters Allied Forces Northern Europe.
- In July 1965, Region III was established at Izmir, Turkey, to support Headquarters Allied Land Forces Southeastern Europe.
- In October 1966, Region IV was established at Brunssum, The Netherlands, to support Headquarters Allied Forces Central Europe.
- On October 15, 1966, the 450th with its regional elements, was redesignated the 650th Military Intelligence Detachment.
- In 1967, SHAPE Headquarters moved from France to Casteau, Belgium. In March 1967, the 650th was relocated to the outskirts of Brussels, Belgium. In mid-May 1968, the 650th was again relocated, this time to the new SHAPE Headquarters located approximately 35 miles south of Brussels, Belgium.
- On February 16, 1970, Region V was organized to provide direct CI support to SHAPE Headquarters.
- On July 20, 1970, the 650th became a Group and was organized as follows:

Headquarters	SHAPE, Belgium
Region I	Naples, Italy
Region II	Kolsaas, Norway
Region III	Izmir, Turkey
Region IV	Brunssum, Netherlands
Region V	SHAPE, Belgium

- On July 1, 1972, a two-man field office, under Region IV, was established at Mannheim-Seckenheim Federal Republic of Germany, to support Central Army Group and Headquarters, 4th Allied Tactical Air Force. Following the CENTAG Headquarters move to Heidelberg, this office moved as well to insure close contact with the Headquarters.
- On January 1, 1975, a two-man field office under Region IV was established at Ramstein Air Base, the Federal Republic of Germany to support Allied Air Force Central Europe.
- On July 1, 1978, a two-man field office under Region I was established at Vicenza, Italy, to support Headquarters LANDSOUTH and Headquarters 5th Allied Tactical Air Force.
- On April 21, 1983, a two-man field office under Region II was established at Karup, Denmark, to support Headquarters Baltic Approaches and Headquarters JUTLAND.
- On June 30, 1983, Region III became Izmir Detachment under control of Region I for better command and control of the counterintelligence support in the southern region of ACE.

The 650th now provides a full range of counterintelligence support to the ACE Forces encompassing a 3600 mile defense line from the northern tip of Norway to remote sites in the mountains of Eastern Turkey. Its members, past and present, have been carefully selected to assure the SACEUR of consistent, high quality counterintelligence support. As a consequence, this unit has built an extremely fine reputation with the member nations of the alliance. Many unit members have gone on to posi-

tions of great importance, to include Lt. Gen. James A. Williams, Director, Defense Intelligence Agency, who is a former Group Commander. The 650th is now composed of 27 officers, 38 enlisted personnel and 6 civilians. As of June 30, 1983, the 650th Military Intelligence Group is organized as follows:

Headquarters	SHAPE, Belgium
Region I	Naples, Italy
Izmir Detachment	Izmir, Turkey
Vicenza Detachment	Vicenza, Italy
Region II	Kolsaas, Norway
BALTAP Detachment	Karup, Denmark
Region IV	Brunssum, The Netherlands
Heidelberg Detachment	Heidelberg, Federal Republic of Germany
Ramstein Detachment	Ramstein, Federal Republic of Germany
Region V	SHAPE, Belgium

The 650 MI Unit Crest

The two sea lions represent alertness and swiftness of action. The octagon refers to the number "eight," which in numerology stands for perfect intelligence. The colors white and black symbolize day and night vigilance, while gold, the color of the farseeing sun, which appears bringing light out of an inscrutable darkness only to disappear again into darkness, stands for intuition.

MOTTO: The motto "Security -Truth -Alliance" expresses a tradition of service to Allied Command Europe which dates back to 1951. Since that date, the elements of physical, document, and personnel SECURITY of Allied Command Europe have been enhanced by the professional competence of the ACE CI Activity. The provision of this security has sought TRUTH as the ultimate investigative service goal. The ALLIANCE and its needs are always foremost in application of the counterintelligence mission.

1983 Survey Results

Thanks for your help. The 1983 reader's survey was a resounding success. As always ***MI Magazine*** is dedicated to you, our readers, and we appreciate the time many of you took to complete the survey. We will use the results and your suggestions to better serve you.

Surveys were completed by individuals representing all the services and 5.9 percent of those surveyed were civilians. The overwhelming majority of responses was from the Army, 81.5 percent. The Marine Corps accounted for 6.5 percent; the Air Force 4.3 percent; and the Navy 1.7 percent.

Although ACSI Viewpoint was read in its entirety by the majority of those surveyed, OPFOR was the most widely read as indicated by the "read all of it" and "read most of it" columns.

For seeing more emphasis on a subject, the top three vote getters were intelligence training, tactical intelligence and foreign forces and equipment. The wide variation in answers attests to the fact that our reader's interest in intelligence runs the gamut. This is a huge tab to fill, but we are trying our best to accommodate you. As one respondent said, "You will never satisfy everybody."

Some of the recurring comments were that we publish more often, that we include more "how to" information, and many ROTC units wrote to say the magazine was a great asset to senior cadets.

Those of you who have been experiencing trouble with your paid subscriptions should contact the Superintendent of Documents, Government Printing Office directly. We recently purged our appropriated distribution list to more efficiently serve you. If your unit is having problems with your magazine subscription, please contact our office at Fort Huachuca.

Simply because we've completed the survey, don't feel as if you can't communicate with the staff of ***Military Intelligence Magazine.*** We are encouraged by your input and enlightened by your constructive criticism. Your input is what keeps the magazine going. Keep it coming.

Again our sincere thanks. Here's a look at some of your comments:

"Probably the greatest need for articles is on the subject of how to be a good S2. I don't refer to the doctrinal propaganda, but sound, helpful suggestions and techniques for an inexperienced 35, 36, and 37 second lieutenant to apply to do his job better . . ."

"I am pleased to see a dramatically improved MI Magazine. I have been a subscriber since 1975 and to use a much coined phrase, 'You've come a long way.' Keep it up."

" . . .There are never articles on document security, personnel security or OPSEC in any great detail. Articles on foreign armies and equipment are limited in nature. Other branch magazines address the 'nuts and bolts' of these subjects, providing how to (information). I find very few articles like this in MI Magazine. It is interesting reading in many cases, but not professionally worthwhile in providing informative ideas or suggestions. I would like to see a section devoted to short articles on any subject involving a better way to do tactical intelligence."

"I am very impressed with MI!. . . Most articles have application to the USMC also. The only improvement I personally would appreciate is monthly vice quarterly issues of the same quality."

EQUIPMENT TRAINING FOR MI OFFICERS

by 1st Lt. Kenneth Watras

The modern electronic battlefield presents unprecedented challenges for military intelligence leaders, trainers, and training developers. How well MI units perform in future battles depends unquestionably on the quality of MI leadership and training—especially officer training. To keep pace with a technological revolution in MI systems, equipment, and organizations, the U.S. Army Intelligence Center and School is developing and implementing a comprehensive new officer training strategy in the near future. A significant element of this training strategy involves hands-on MI (CEWI) equipment training.

Trainers and training developers overwhelmingly agree that MI tactical electronic equipment at USAICS is essential for effective training of MI officers. Reality dictates that USAICS provide hands-on electronic equipment training at Fort Huachuca. An MI officer can be assigned to several tactical intelligence slots for an MI battalion. An MI officer will often be responsible for either deploying and supervising electronic equipment, or planning electronic warfare and intelligence missions involving electronic equipment. Wherever he is assigned, an MI officer will be viewed, or expected to be, the tactical intelligence expert regardless of his particular specialty code. Both his performance and credibility hinge on his military intelligence expertise, a part of which entails skills and knowledge of electronic receivers, transceivers, antennas, and radio wave propagation. Technical manuals and classroom instruction are not effective substitutes for hands-on equipment training.

Currently, USAICS electronic equipment training occurs in the specialty 37 course and includes the following: classroom lectures on MI equipment, familiarization with Watkins-Johnson receivers and signal monitors; and a one-week field training exercise at a MI tactical unit. However, with the implementation the new MI Officer Basic Course, in October 1983, USAICS will thoroughly train MI lieutenants in common Army skills and all-source intelligence. The MIOBC will incorporate signals intelligence and electronic warfare training, which will necessitate electronic equipment training.

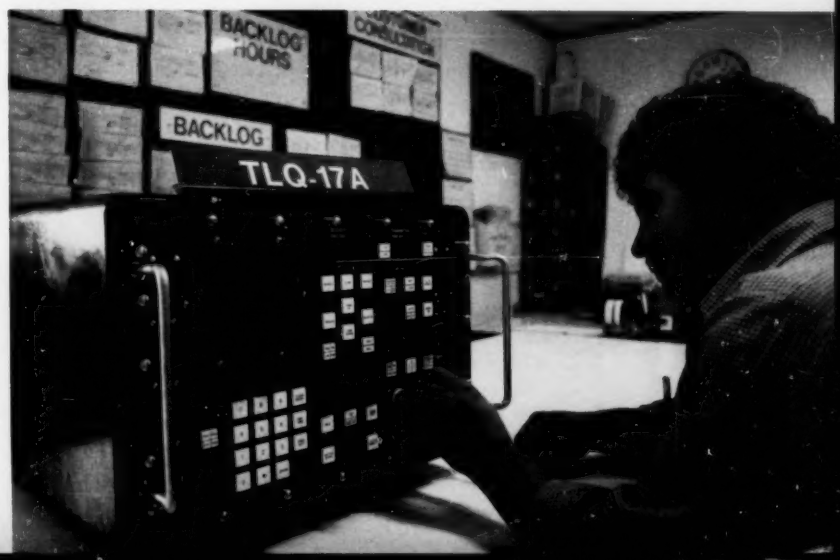
With the exception of the off-the-shelf Watkins-Johnson equipment currently in USAICS' inventory and a recently acquired AN/TRQ-30 receiving set, USAICS lacks the electronic equipment organic to an MI battalion or MI group. Not only is this equipment very expensive, but it is also in short supply in tactical inventories. Consequently, USAICS has undertaken two training development projects to solve this equipment shortfall.

The first project entails USAICS' long-term plan for an MI battalion or battalion slice to be stationed at Fort Huachuca. Under the proposed plan, MI teams and electronic equipment would be available to assist in classroom and field training exercises. MI officers would thus have realistic, hands-on-training in the planning, development, operation, and supervision of MI teams and equipment at USAICS prior to a tactical assignment. MI officer training would therefore provide a realism similar to that provided combat arms officers.

Complementing USAICS' acquisition of electronic equipment and teams is the school's short-term acquisition of a variety of training aids. This latter project includes not only full-scale mock-ups of MI receivers and transceivers, but also pictorial collages of all electronic equipment organic to an MI battalion and an MI group. USAICS already has obtained a full-scale wooden mock-up of the AN/TLQ-17A jammer and plans to acquire a mock-up of the AN/TRQ-30 receiver. Moreover, the school has also received seven pictorial collages of the AN/TLQ-17A and the AN/TLQ-15 jammers; the AN/TRQ-32 receiving sets; the AN/MLQ-24 countermeasures receiving set and the AN/MSQ-103 special purpose receiving set; the AN/TYK-10A data analysis central; and the Mobile Radio Direction Finding system composed of Watkins-Johnson systems currently in USAICS's inventory. Each pictorial collage contains several large color photographs of specific electronic systems tactically deployed, as well as a printed summary of equipment characteristics and performance parameters.

Hands-on electronic equipment training is one of USAICS' long-range goals for MI officer training. In the short term, however, USAICS will rely on classroom instruction complemented by mock-ups and pictorial collages.

TLQ-17A being used in hands-on electronic equipment training.



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